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ABSTRACT

The coding system used to classify items in the Instructional Program Planning and Evaluation System (IPPEs) Master Objectives Bank is explained. Sixty-seven topics in mathematics to be covered in grades kindergarten through six are specified; objectives are listed under these topics along with their code numbers. (For a listing by grade level, see SE 016 296.) This work was prepared under an ESEA Title III contract. (DT)

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I.P.P.E.S. MASTER OBJECTIVES

MATHEMATICS INSTRUCTIONAL TOPICS

JACKSON PUBLIC SCHOOLS

**INSTRUCTIONAL PROGRAM
PLANNING & EVALUATION SYSTEM**

290 WEST MICHIGAN AVENUE
JACKSON, MICHIGAN 49201

Funded under Title III, ESEA of 1965,
Michigan Department of Education, Project Number 0621

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S MASTER OBJECTIVES BANK

IC INSTRUCTIONAL TOPIC CATALOG

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ITEM CODE NUMBERS

Each item of the I.P.P.E.S. Master Objectives Bank is coded with a ten digit number user to categorize a given objective or to locate a needed objective according to a number

1. Subject matter major classification. Initially IPPES will provide objectives and grammar, (c) science, (d) social studies, and (e) writing skills and writing left to right) indicate subject matter:

- (a) 00XXXXXXXX = mathematics
- (b) 01XXXXXXXX = reading
- (c) 02XXXXXXXX = science
- (d) 03XXXXXXXX = social studies
- (e) 04XXXXXXXX = writing

2. Grade Level. The grade level at which an objective is normally or traditionally into the third and fourth digits of the code number. The first issue of the catalog through grade six according to the following code:

- (a) XX00XXXXXX = kindergarten
- (b) XX01XXXXXX = first grade
- (c) XX02XXXXXX = second grade
- (d) XX03XXXXXX = third grade
- (e) XX04XXXXXX = fourth grade
- (f) XX05XXXXXX = fifth grade
- (g) XX06XXXXXX = sixth grade

3. Topic of Instructional Unit: The fifth, sixth, and seventh digits indicate the the objective. Each subject matter major classification may be divided into three. The three digit numerals assigned to topics specific to this catalog are four. The body of the catalog all objectives associated with a topic are grouped with and are associated with a seven digit number.

ITEM CODE NUMBERS

The Objectives Bank is coded with a ten digit numeral. The system chosen makes it easy for any user to locate a needed objective according to a number of factors:

1. Content. Initially IPPES will provide objectives in five areas: (a) mathematics, (b) reading, (c) social studies, and (d) writing skills and written expression. The first two digits (from left to right) indicate the matter:

01 Mathematics
02 Reading
03 Science
04 Social studies
05 Writing

2. Grade. The grade at which an objective is normally or traditionally introduced into the curriculum is coded by the third digit of the code number. The first issue of the catalogs covers the grade span from kindergarten through sixth grade. The following code:

0 Kindergarten
1 First grade
2 Second grade
3 Third grade
4 Fourth grade
5 Fifth grade
6 Sixth grade

3. Topic. The fifth, sixth, and seventh digits indicate the topic of the instructional unit covered by the objective. After major classification may be divided into one thousand topics within each grade level. Specific topics related to this catalog are found on the following Topic Summary Sheet. Within each grade level, objectives associated with a topic are grouped within grade levels. Topic headings are given by the eighth digit number.

4. Objective Within Topic. A maximum of one thousand objectives may be grouped under a topic. The eighth, ninth, and tenth digits of the code number indicate the objective within the topic.

SPECIFIC EXAMPLES OF CODING

1. Science

0200C60007 KNOW THE PARTS OF A CHICKEN EGG. (Seventh objective within topic)

— Topic: BIRDS
— Kindergarten Level
— Science

2. Reading

0102025001 SELECTS MAIN IDEA OF A PARAGRAPH. (First objective within topic)

— Topic: READING COMPREHENSION
— Second Grade Level
— Reading

3. Social Studies

0305295002 NAME THE MAIN CAUSES OF THE FRENCH AND INDIAN WAR. (Second objective within topic)

— Topic: U.S. FRENCH AND INDIAN WAR.
— Fifth Grade Level
— Social Studies

1. A maximum of one thousand objectives may be grouped under one Instructional Unit topic. The
with the digits of the code number indicate the objective within the topic.

SPECIFIC EXAMPLES OF CODING

Topic: A CHICKEN EGG. (Seventh objective within topic)

1

1c) OF A PARAGRAPH. (First objective within topic)

COMPREHENSION

1

Object: PHASES OF THE FRENCH AND INDIAN WAR. (Second objective within topic)

FRENCH AND INDIAN WAR.

MATHEMATICS TOPIC SUMMARY SHEET
Grades K-6

<u>CODE</u>	<u>TOPIC</u>	<u>COD</u>
000	Absolute Value	17
005	Addition	17
010	Addition (Word Problems)	18
015	Bases	18
020	Clock (Module) Arithmetic	19
025	Decimals	19
030	Division	20
035	Estimation	20
040	Exponential Notation	21
045	Fractions	21
050	Geometry (Coordinate Systems)	22
055	Geometry (plane figures) - angles -	22
060	Geometry (plane figures) - circle -	23
065	Geometry (plane figures) - congruence -	23
070	Geometry (plane figures) - constructions -	24
075	Geometry (plane figures) - ellipse -	24
080	Geometry (plane figures) - lines -	25
085	Geometry (plane figures) - open/closed figures -	25
090	Geometry (plane figures) - polygons -	26
095	Geometry (plane figures) - quadrilaterals -	26
100	Geometry (plane figures) - sets of points -	27
105	Geometry (plane figures) - similarity -	27
110	Geometry (plane figures) - symbols and notation -	28
115	Geometry (plane figures) - symmetry -	28
120	Geometry (plane figures) - terminology -	29
125	Geometry (plane figures) - triangle -	29
130	Geometry (Size and Shape)	30
135	Geometry (Solids)	30
140	Geometry (Space Relationships)	31
145	Graphs	31
150	Inverse (Additive)	32
155	Inverse (Multiplicative)	32
160	Mathematical Systems (Finite and Nonfinite)	33
165	Measurement (Area)	

MATHEMATICS TOPIC SUMMARY SHEET
Grades K-6

<u>COD</u>	<u>CODE</u>	<u>TOPIC</u>
17	170	Measurement (Dry)
17	175	Measurement (Instruments)
18	180	Measurement (Linear)
18	185	Measurement (Liquid)
19	190	Measurement (Precision)
19	195	Measurement (Rate)
20	200	Measurement (Relative)
20	205	Measurement (Temperature)
21	210	Measurement (Time)
21	215	Measurement (Volume)
22 (ms)	220	Multiplication
22 angles -	225	Number Sentences
23 circle -	230	Number Systems (Early)
23 congruence -	235	Numbers (Integers)
24 constructions -	240	Numbers (Prime - Composite)
24 ellipse -	245	Numbers (Rational and Irrational)
25 lines -	250	Numbers (whole)
25 open/closed figures -	255	Numerals
26 polygons -	260	Patterns
26 quadrilaterals -	265	Percentage
27 sets of points -	270	Place Value
27 similarity -	275	Probability
28 symbols and notation -	280	Proportion
28 symmetry -	285	Ratio
29 terminology -	290	Scientific Notation
29 triangle -	295	Sets
30	300	Simplest Terms
30	305	Square Root
31 (ips)	310	Statistics
31	315	Subtraction
32	320	Subtraction (Word Problems)
32	325	Value of Coins
33 te and Nonfinite)	330	Word Problem Solution Strategies

0000005	ADDITION
0000005001	USING A PICTURE OF TWO SETS OF OBJECTS ADD TWO NUMBERS WHERE THE SUM IS 10 OR LESS.
0000005002	USING A NUMBER LINE, ADD TWO NUMBERS WHERE THE SUM IS 10 OR LESS.
0000005003	ADD TWO 1 DIGIT NUMBERS.
0000005004	ADD TWO 1 DIGIT NUMBERS VERTICALLY AND/OR HORIZONTALLY WHERE THE SUM IS 10 OR LESS.
0001005	ADDITION
0001005001	IDENTIFIES THE ADDITIVE PROPERTY OF 0.
0001005002	MANIPULATES OBJECTS TO ILLUSTRATE ADDITION FACTS THROUGH 5.
0001005003	SELECTS OTHER NAMES FOR NUMBERS BY MATCHING ADDITION EXPRESSIONS.
0001005004	IDENTIFIES CARDINAL NUMBER IN EACH OF TWO SETS TOGETHER THROUGH 5.
0001005005	STUDENT SUPPLIES THE SYMBOLS FOR PLUS (+), AND EQUAL TO (=) TO REPRESENT ADDITION.
0001005006	IDENTIFIES EQUAL SIGN (=) AND ITS MEANING WHEN USED IN AN EQUATION.
0001005007	USE THE SYMBOLS +, AND = TO FORM SENTENCES SUCH AS $3 + 6 = 9$.
0001005008	SOLVES EQUATIONS OF SUMS TO 5 (FIRST HORIZONTAL THEN VERTICAL).
0001005009	MANIPULATES OBJECTS TO ILLUSTRATE ADDITION FACTS 6-9.

OBJECTS ADD TWO NUMBERS WHERE THE SUM IS 10 OR LESS.

NUMBERS WHERE THE SUM IS 10 OR LESS.

VERTICALLY AND/OR HORIZONTALLY WHERE THE SUM IS 10 OR LESS.

PROPERTY OF 0.

GRADE ADDITION FACTS THROUGH 5.

NUMBERS BY MATCHING ADDITION EXPRESSIONS WITH PICTURED GROUPS OF NUMERALS TO 5.

COMBINE EACH OF TWO SETS TOGETHER THROUGH 5.

REPLACE PLUS (+), AND EQUAL TO (=) TO REPLACE THE WORDS IN A NUMBER SENTENCE.

UNDERSTAND ITS MEANING WHEN USED IN AN EQUATION.

FORM SENTENCES SUCH AS $3 + 6 = 9$.

ORDER (FIRST HORIZONTAL THEN VERTICAL).

GRADE ADDITION FACTS 6-9.

0001005010	SELECTS OTHER NAMES FOR NUMBERS BY MATCHING ADDITION EXPRESSIONS WI
0001005011	IDENTIFIES CARDINAL NUMBER IN EACH OF TWO SETS AND IN BOTH SETS TOGE
0001005012	SOLVES EQUATIONS OF SUMS (6-9) (FIRST HORIZONTAL THEN VERTICAL)
0001005013	MANIPULATES OBJECTS TO ILLUSTRATE COMBINATIONS OF TEN.
0001005014	SELECTS OTHER NAMES FOR 10 WITH PICTURE GROUPS OR NUMERALS.
0001005015	IDENTIFIES CARDINAL NUMBER IN EACH OF TWO SETS AND IN BOTH SETS TOGE
0001005016	USE THE ADDITION FACTS THROUGH THE SUM OF 10.
0001005017	FILLS IN MISSING ADDENDS FROM EQUATIONS WITH SUMS OF 10.
0001005018	SOLVES EQUATIONS WITH SUM OF 10 (FIRST HORIZONTAL THEN VERTICAL)
0001005019	RECOGNIZE EXAMPLES OF THE COMMUTATIVE PROPERTY FOR ADDITION IN TH
0001005020	GIVEN AN ADDITION EQUATION, WRITES OR COMPLETES A SECOND EQUATION FOR ADDITION TO 10.
0001005021	FILLS IN NUMBERS (MISSING SUMS) TO MAKE TRUE NUMBER SENTENCES FOR
0001005022	WRITES = SIGN TO IDENTIFY TRUE STATEMENTS, CREATES TRUE NUMBER SENTENCE
0001005023	IDENTIFIES AN UNKNOWN COMBINATION GREATER THAN 10, USING A KNOWN

BY MATCHING ADDITION EXPRESSIONS WITH PICTURED GROUPS OR NUMERALS 6-9.

CH OF TWO SETS AND IN BOTH SETS TOGETHER EQUALING 6-9.

(FIRST HORIZONTAL THEN VERTICAL).

COMBINATIONS OF TEN.

H PICTURE GROUPS OR NUMERALS.

CH OF TWO SETS AND IN BOTH SETS TOGETHER EQUALING 10.

E SUM OF 10.

ATIONS WITH SUMS OF 10.

(FIRST HORIZONTAL THEN VERTICAL).

TIVE PROPERTY FOR ADDITION IN THE SET OF WHOLE NUMBERS.

S OR COMPLETES A SECOND EQUATION TO ILLUSTRATE THE COMMUTATIVE PRINCIPLE

G MAKE TRUE NUMBER SENTENCES FOR PICTURED ADDITION SITUATIONS.

ATEMENTS, CREATES TRUE NUMBER SENTENCES, CHANGING ONLY ONE NUMBER. SUMS TO 10.

GREATER THAN 10, USING A KNOWN COMBINATION.

0001005024	GIVEN NUMBER SENTENCES, SUMS TO 12, STUDENT ILLUSTRATES ELEMENT OF	S T
0001005025	GIVEN ANY NUMBER TO 12, STUDENT NAMES THAT NUMBER IN ALL POSSIB	DEN
0001005026	STUDENT USES HORIZONTAL AND VERTICAL ALGORISMS TO SOLVE PROBLEMS O	VE
0001005027	GIVEN NUMBER SENTENCES WITH SUMS TO 12, THE STUDENT WILL ILLUSTRATE	SH
0001005028	IDENTIFIES THE USE OF PARENTHESES IN ADDITION EQUATIONS CONTAINING	THF
0001005029	IDENTIFIES SUMS OF 3 ADDENDS (FIRST HORIZONTAL THEN VERTICAL).	S
0001005030	SOLVES ONE-STEP WORD PROBLEMS WITH PICTURFS TO 10.	IS
0002005	ADDITION	
0002005001	USES THE NUMBER LINE IN WORKING WITH ADDITION CONCEPT.	KIN
0002005002	RECOGNIZES AND USES THE SYMBOLS + AND =.	BOL
0002005003	FILLS IN NUMBERS (MISSING SUMS TO MAKE TRUE NUMBER SENTENCES.	UMS
0002005004	RECOGNIZE ZERO AS THE IDENTITY ELEMENT FOR ADDITION IN THE SET OF	ITY
0002005005	WRITES THE NUMBER OF OBJECTS IN EACH OF TWO SETS AND THE NUMBER OF	S I
0002005006	WRITES EQUATIONS RELATED TO A PARTICULAR SET (OR FAMILY) TO 10.	A

S TO 12, STUDENT ILLUSTRATES ELEMENT OF IDENTITY 0.

IDENT NAMES THAT NUMBER IN ALL POSSIBLE ADDITION COMBINATIONS.

VERTICAL ALGORITHMS TO SOLVE PROBLEMS OF ADDITION SUMS TO 12.

SUMS TO 12, THE STUDENT WILL ILLUSTRATE THE COMMUTATIVE PROPERTY,

THESSES IN ADDITION EQUATIONS CONTAINING MORE THAN TWO ADDENDS.

(FIRST HORIZONTAL THEN VERTICAL).

MS WITH PICTURES TO 10.

ING WITH ADDITION CONCEPT.

BOLS + AND =.

UMS TO MAKE TRUE NUMBER SENTENCES.

ITY ELEMENT FOR ADDITION IN THE SET OF WHOLE NUMBERS.

S IN EACH OF TWO SETS AND THE NUMBER OF OBJECTS WHEN PUT TOGETHER. SUMS TO 10.

A PARTICULAR SET (OR FAMILY) TO 10.

0002005007	RECOGNIZES THE COMMUTATIVE (ORDER) PRINCIPLE IN	ADDITION.
0002005008	DISCOVER FROM THE ADDITION TABLE, NUMBER PATTERNS	THROUGH THE SUM
0002005009	CAN DEMONSTRATE THAT THE MATHEMATICAL OPERATION OF	INTERSECTION IS
0002005010	BEGIN TO APPRECIATE USE OF TEN TO MAKE ADDITION EASY.	
0002005011	USES PARENTHESES AND ASSOCIATIVE PRINCIPLE TO SHOW WHICH NUMBERS ARE ADD	PR
0002005012	RECALL THE ADDITION FACTS THROUGH THE SUM OF 18.	
0002005013	GIVEN ANY NUMBER TO 18, STUDENT WILL RE-NAME NUMBER IN	ALL POSSIBLE AD
0002005014	ADD TWO 1 DIGIT NUMBERS VERTICALLY AND/OR HORIZONTALLY	WHERE THE SUM I
0002005015	RECOGNIZES THAT TWO EVEN ADDENDS PRODUCE AN EVEN SUM.	PRO
0002005016	RECOGNIZES THAT TWO ODD ADDENDS PRODUCE AN EVEN SUM.	ROD
0002005017	FIND THE MISSING NUMBER IN AN ADDITION PROBLEM WHERE THE NUMERALS ARE LE	ITI
0002005018	STUDENT USES THE HORIZONTAL AND VERTICAL ALGORITHMS TO	SOLVE PROBLEMS
0002005019	GIVEN ONE MEMBER OF A RELATED NUMBER FACT WITH SUMS TO	18, THE STUDENT
0002005020	USING SETS, STUDENT WILL ILLUSTRATE THE ASSOCIATIVE	PROPERTY OF ADD

R) PRINCIPLE IN ADDITION.

NUMBER PATTERNS THROUGH THE SUM 18.

TICAL OPERATION OF INTERSECTION IS RELATED TO ADDITION.

MAKE ADDITION EASY.

PRINCIPLE TO SHOW WHICH NUMBERS ARE ADDED FIRST.

THE SUM OF 18.

ILL RE-NAME NUMBER IN ALL POSSIBLE ADDITION COMBINATIONS.

Y AND/OR HORIZONTALLY WHERE THE SUM IS NOT GREATER THAN 18.

PRODUCE AN EVEN SUM.

PRODUCE AN EVEN SUM.

ITION PROBLEM WHERE THE NUMERALS ARE LESS THAN 18.

ERTICAL ALGORITHMS TO SOLVE PROBLEMS OF ADDITION WITH SUMS TO 18.

BER FACT WITH SUMS TO 18, THE STUDENT NAMES THE OTHER THREE MEMBERS.

TE THE ASSOCIATIVE PROPERTY OF ADDITION.

0002005021	USES ASSOCIATIVE (GROUPING) PRINCIPLE FOR FINDING SUMS GREATER THAN	THIRTY
0002005022	THE STUDENT USES EXPANDED NOTATION TO ADD PAIRS OF TWO-DIGIT NUMBERS	AT
0002005023	ADD THREE 2-DIGIT NUMERALS WITHOUT REGROUPING.	THO
0002005024	FINDS SUMS OF THREE AND FOUR DIGIT NUMBERS WITHOUT REGROUPING	DIC
0002005025	SOLVES COLUMN ADDITION PROBLEMS WITH THREE OR MORE ADDENDS WITH	MS
0003005	ADDITION	
0003005001	DISCOVER NUMBER PATTERNS FROM THE ADDITION TABLES.	TH
0003005002	GIVEN ANY NUMBER SENTENCE, STUDENT IDENTIFIES THE REMAINING	IDE
0003005003	USES COMMUTATIVE PRINCIPLE OF ADDITION.	AD
0003005004	USES ZERO (IDENTITY) AND ONE PRINCIPLE OF ADDITION.	PR
0003005005	GIVEN THE SUM AND ONE ADDEND IN AN ADDITION PROBLEM, FIND THE MISSING	IN
0003005006	WRITES ADDITION, EQUATIONS WITH ADDENDS AND USES VARYING NUMBERS OF	TH
0003005007	WRITES RELATED ADDITION EQUATIONS FOR GIVEN SETS, NUMBER LINES.	ION
0003005008	FINDS SUMS COLUMN ADDITION, NO REGROUPING ONE OR TWO DIGIT NUMBERS	D F

THE PRINCIPLE FOR FINDING SUMS GREATER THAN 10.

OPERATION TO ADD PAIRS OF TWO- DIGIT NUMERALS.

WITHOUT REGROUPING.

FINDING DIGIT NUMBERS WITHOUT REGROUPING.

WITH SUMS WITH THREE OR MORE ADDENDS WITH SUMS TO 18.

THE ADDITION TABLES.

STUDENT IDENTIFIES THE REMAINING MEMBERS OF THE ADDITION FAMILY.

ADDITION.

PRINCIPLE OF ADDITION.

IN AN ADDITION PROBLEM, FIND THE MISSING ADDEND, USING INVERSE OPERATION.

OF TWO ADDENDS AND USES VARYING NUMBERS OF DIGITS IN VERTICAL FORM.

PROBLEMS FOR GIVEN SETS, NUMBER LINES.

NUMBER REGROUPING ONE OR TWO DIGIT NUMBERS, MULTIPLE ADDENDS.

0003005009	STUDENT USES THE VERTICAL ALGORITHM TO SOLVE ADDITION PROBLEMS OF THE	SM
0003005010	ADD TWO 2 DIGIT NUMERALS BY USING EXPANDED NOTATION.	E
0003005011	USES ASSOCIATIVE PRINCIPLE OF ADDITION TO ADD TWO OR MORE DIGIT NUM	DIT
0003005012	DEMONSTRATE UNDERSTANDING OF GROUPING AND REGROUPING BY COMPLETING SEV	UPI
	3 HUNDREDS + X TENS + 4 ONES BY MEANS OF TALLY BOXES OR OTHER DEVICES.	MEA
0003005013	ADD THREE 2 DIGIT NUMERALS WITHOUT REGROUPING.	UT
0003005014	ADDS, WITH REGROUPING, THREE DIGIT NUMERALS, TWO ADDENDS.	ET
0004005	ADDITION	
0004005001	STUDENT IDENTIFIES AND ILLUSTRATES PROPERTIES OF WHOLE NUMBERS UNDER A	IS
0004005002	DO COLUMN ADDITION WITH SEVERAL FOUR-PLACE OR FIVE-PLACE ADDENDS.	OU
0004005003	ADDS, WITH REGROUPING, MULTI-DIGITED NUMBERS, MULTIPLE ADDENDS. USES	TE
0005005	ADDITION	
0005005001	STUDENT REGROUPS TO SOLVE MULTI-DIGIT ADDITION PROBLEMS.	IG
0005005002	FIND THE SUM OF 4 ADDENDS WITH UP TO 4 DIGITS EACH.	T
0005005003	SOLVES ANY GIVEN ADDITION EQUATION INVOLVING WHOLE NUMBERS USING	N

SM TO SOLVE ADDITION PROBLEMS OF THREE AND FOUR DIGIT NUMERALS.

EXPANDED NOTATION.

DITION TO ADD TWO OR MORE DIGIT NUMERALS.

UPING AND REGROUPING BY COMPLETING SENTENCES SUCH AS $458 = x + 50 + 8$ AND $394 =$
MEANS OF TALLY BOXES OR OTHER DEVICES.

UT REGROUPING.

IT NUMERALS, TWO ADDENDS.

S PROPERTIES OF WHOLE NUMBERS UNDER ADDITION.

OUR-PLACE OR FIVE-PLACE ADDENDS.

TED NUMBERS, MULTIPLE ADDENDS. USES ADDITION ALGORITHM.

IGIT ADDITION PROBLEMS.

TO 4 DIGITS EACH.

ING WHOLE NUMBERS USING THE ADDITION ALGORITHM.

0005005004 WRITE AN EQUATION FOR A WORD PROBLEM INVOLVING ADDITION AND FINDING THE MISSING ADDEND IN AN INCOMPLETE ADDITION SENTENCE

0006005 ADDITION

0006005001 FIND THE MISSING ADDEND IN AN INCOMPLETE ADDITION SENTENCE

0006005002 ADD NUMBERS WITH 3 OR MORE DIGITS.

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PROBLEM INVOLVING ADDITION AND FIND THE ANSWER.

IN INCOMPLETE ADDITION SENTENCE.

DIGITS.

0001010	ADDITION (WORD PROBLEMS)	
0001010001	SOLVE WORD PROBLEMS IN WHICH TWO 1 DIGIT NUMBERS ARE	ADDED AND THE SUM IS 10 OR LESS
0001010002	SOLVE WORD PROBLEMS INVOLVING ADDITION OF TWO 2 DIGIT	NUMERALS.
0002010	ADDITION (WORD PROBLEMS)	
0002010001	READS AND TRANSFERS INFORMATION FROM A WORD PROBLEM TO	THE SYMBOLS OF A WORD PROBLEM
0002010002	SOLVE WORD PROBLEMS FOR ADDITION PROBLEMS WHERE THE SUM	IS NOT GREATER THAN 10
0003010	ADDITION (WORD PROBLEMS)	
0003010001	SOLVE TO THE NEAREST MINUTE, 1 STEP ADDITION STORY	PROBLEMS INVOLVING ADDITION OF 1 DIGIT
0003010002	WRITE AND SOLVE EQUATIONS FOR STORY PROBLEMS REQUIRING	ADDITION OF 1 DIGIT
0003010003	SOLVE WORD PROBLEMS FOR ADDITION OF 2 NUMERALS WITH NO	MORE THAN 4 DIGITS

1 DIGIT NUMBERS ARE ADDED AND THE SUM IS TEN OR LESS.

ADDITION OF TWO 2 DIGIT NUMERALS.

FROM A WORD PROBLEM TO THE SYMBOLS OF ARITHMETIC TO SOLVE THE PROBLEM.

PROBLEMS WHERE THE SUM IS NOT GREATER THAN 18.

ADDITION STORY PROBLEMS INVOLVING TIME.

PROBLEMS REQUIRING ADDITION OF 1 OR 2 DIGIT NUMBERS.

OF 2 NUMERALS WITH NO MORE THAN 4 DIGITS.

0005015 BASES

0005015001 GIVES BASE 4 NUMERAL FOR A GIVEN SET.

0005015002 GIVES FACE VALUE OF BASE 4 DIGITS.

0005015003 IDENTIFIES BASE 4 DIGITS.

0005015004 GIVES PLACE VALUE, BASE 4 DIGITS.

0005015005 GIVES TOTAL VALUE OF BASE 4 DIGITS.

0005015006 CONVERTS BASE 10 NUMERAL TO BASE 4.

0005015007 CONVERTS BASE 4 NUMERAL TO BASE 10.

0006015 BASES

0006015001 COUNT IN BASE 2, 3, 4, 5, 6, 7, 8, 9.

0006015002 GIVEN A BASE TEN NUMBER, EXPRESS IT AS A NUMBER IN A BASE LESS T

0006015003 GIVEN A NUMBER IN A BASE LESS THAN 10, EXPRESS IT AS A BASE TEN NU

GIVEN SET.

DIGITS.

DIGITS.

DIGITS.

BASE 4.

BASE 10.

7, 8, 9.

EXPRESS IT AS A NUMBER IN A BASE LESS THAN TEN.

IF IT IS GREATER THAN 10, EXPRESS IT AS A BASE TEN NUMBER.

0004020

CLOCK (MODULO) ARITHMETIC

0004020001

GIVEN ADDITION, SUBTRACTION, AND MULTIPLICATION
ARITHMETIC.

PROBLEMS, STUD

MUL

PAGE 10

UD MULTIPLICATION

PROBLEMS, STUDENTS CAN SOLVE THEM USING CLOCK

0004025	DECIMALS	
0004025001	SOLVE WORD PROBLEMS WHICH REQUIRE DIVISION OF A DECIMAL BY A WHOLE	QUI
0005025	DECIMALS	
0005025001	RECOGNIZES DECIMALS AS NAMES FOR RATIONAL NUMBERS.	FO
0005025002	READ SIMPLE DECIMALS.	
0005025003	WRITE SIMPLE DECIMALS.	
0005025004	READS RATIONAL NUMBERS USING DECIMAL NOTATION FOR	TENTHS, HUNDRETHS, DE
0005025005	EXPRESS FRACTIONS WITH DENOMINATORS OF 10, 100, 1000 AS	DECIMALS. INA
0005025006	EXPRESS DECIMALS GIVEN IN TENTHS, HUNDREDTHS, OR	THOUSANDTHS, HUNDRETHS
0005025007	WRITES RATIONAL NUMBERS USING DECIMAL NOTATION FOR	TENTHS, HUNDRETHS, DE
0005025008	WRITES COLUMN ADDITION EQUATIONS USING DECIMAL NOTATION.	ION
0005025009	SOLVES COLUMN ADDITION EQUATIONS USING DECIMAL NOTATION.	ION
0005025010	FIND THE SUM OF FIVE OR FEWER DECIMALS.	R D
0005025011	FIND THE DIFFERENCE OF TWO DECIMALS.	ECI
0005025012	USES LESS THAN, GREATER THAN, = TO DISTINGUISH	INEQUALITIES, =

OL. REQUIRE DIVISION OF A DECIMAL BY A WHOLE NUMBER.

FOR RATIONAL NUMBERS.

HU. DECIMAL NOTATION FOR TENTHS, HUNDREDTHS, AND THOUSANDTHS.

S. DENATORS OF 10, 100, 1000 AS DECIMALS.

OTH. NTHS, HUNDREDTHS, OR THOUSANDTHS AS FRACTIONS.

HU. G DECIMAL NOTATION FOR TENTHS, HUNDREDTHS, AND THOUSANDTHS.

IONS USING DECIMAL NOTATION.

IONS USING DECIMAL NOTATION.

R DECIMALS.

ECIMALS.

TI. , = TO DISTINGUISH INEQUALITIES USING DECIMAL NOTATION.

0005025013	SOLVE WORD PROBLEMS INVOLVING ADDITION AND/OR	SUBTRACTION OF	011
0005025014	RECOGNIZE THE PLACE VALUE OF EACH DIGIT IN A DECIMAL	THROUGH THOUSAND	DI
0005025015	EXPRESS MEASUREMENTS IN DECIMAL NOTATION.		OTA

0006025	DECIMALS		
0006025001	WRITE SENTENCES USING DECIMAL NUMERALS TO REPRESENT	PHYSICAL SITUATION	ERA
0006025002	STUDENT READS RATIONALS IN DECIMAL FORM.		L F
0006025003	WRITES RATIONALS IN DECIMAL FORM.		
0006025004	DEMONSTRATE AN UNDERSTANDING OF THE RELATIONSHIP	BETWEEN DECIMAL	HE
0006025005	EXPRESS A GIVEN DECIMAL TO THE NEAREST WHOLE NUMBER	10, 100, OR 1000	ARE
0006025006	STUDENT SOLVES ADDITION PROBLEMS WITH RATIONALS IN	DECIMAL FORM.	WIT
0006025007	ADD DECIMALS THROUGH 100,000.		
0006025008	STUDENT SOLVES SUBTRACTION PROBLEMS WITH RATIONALS IN	DECIMAL FORM.	MS
0006025009	SUBTRACT DECIMALS THROUGH 100,000.		
0006025010	EXPRESS FRACTIONS WHOSE DENOMINATORS ARE NOT FACTORS	OF 100 AS DECIMAL	ORS

OF ADDITION AND/OR SUBTRACTION OF DECIMALS.

USING A DIGIT IN A DECIMAL THROUGH THOUSANDS.

NOTATION.

NUMERALS TO REPRESENT PHYSICAL SITUATIONS.

FORM.

THE RELATIONSHIP BETWEEN DECIMALS AND COMMON FRACTIONS.

100 NEAREST WHOLE NUMBER 10, 100, OR 1000.

WITH RATIONALS IN DECIMAL FORM.

MS WITH RATIONALS IN DECIMAL FORM.

FACTORS ARE NOT FACTORS OF 100 AS DECIMALS AND PERCENTS.

0006025011	GIVEN ANY DECIMALS THROUGH 100,000, EXPRESS THEM AS	FRACTIONS.	0,00
0006025012	WRITE ANY GIVEN DECIMAL THROUGH 100,000 IN WORD FORM	AND IN NUM	SH 1
0006025013	SOLVE MULTIPLICATION PROBLEMS WITH RATIONALS IN	DECIMAL FO	WIT
0006025014	SOLVES DIVISION PROBLEMS WITH RATIONALS IN DECIMAL	FORM.	RAT
0006025015	GIVEN FRACTIONS WITH DENOMINATORS EXPRESSIBLE AS	POWERS OF	TORS
0006025016	RECOGNIZE REPEATING DECIMALS.		
0002030	DIVISION		
0002030001	IDENTIFIES THE SYMBOL OF DIVISION.		ION
0002030002	RECOGNIZES THAT DIVISION IS THE INVERSE OF	MULTIPLICAT	E I

S. 10,000, EXPRESS THEM AS FRACTIONS.

UM SH 100,000 IN WORD FORM AND IN NUMERICAL FORM.

FO WITH RATIONALS IN DECIMAL FORM.

RATIONALS IN DECIMAL FORM.

F TORS EXPRESSIBLE AS POWERS OF 10 TO 100,000, EXPRESS THEM AS DECIMALS.

ION.

CAT E INVERSE OF MULTIPLICATION.

0003030	DIVISION	
0003030001	FINDS MISSING FACTORS FOR BASIC FACTS.	
0003030002	DIVIDE GIVEN SET OF NO MORE THAN 20 ELEMENTS INTO	GROUPS OF EQUI
0003030003	WRITES DIVISION EQUATIONS FOR GIVEN NUMBER LINES.	
0003030004	WRITE DIVISION EQUATIONS FOR GIVEN SETS.	
0003030005	USES REPEATED SUBTRACTION TO SOLVE BASIC DIVISION	EQUATIONS.
0003030006	FIND THE QUOTIENT OF A DIVISION PROBLEM WITH A 2 DIGIT	DIVIDEND AND A
	SUBTRACTION.	
0003030007	RECOGNIZES DIVISION AS THE INVERSE OF MULTIPLICATION.	
0003030008	USES THE ONE PRINCIPLE FOR DIVISION.	
0003030009	RECOGNIZES 0 IS NEVER A DIVISOR.	
0003030010	USING REPEATED SUBTRACTION WITH MULTIPLES OF THE	DIVISOR, THE ST
	THROUGH 25.	ULT
0003030011	USE THE DIVISION FACTS THROUGH 45.	
0003030012	FINDS MISSING QUOTIENTS FOR DIVISION EQUATIONS THROUGH	81 DIVIDED BY S
		ON
0003030013	FINDS TWO AND THREE DIGIT QUOTIENTS THAT ARE MULTIPLES	OF 10 AND 100
		S
0003030014	SOLVES DIVISION EQUATIONS WITHOUT REMAINDERS, USING	STANDARD ALGORI
	QUOTIENTS.	REN

FACTS.

UI 20 ELEMENTS INTO GROUPS OF EQUIVALENT SETS.

EN NUMBER LINES.

N SETS.

E BASIC DIVISION EQUATIONS.

A PROBLEM WITH A 2 DIGIT DIVIDEND AND A 1 DIGIT DIVISOR USING REPEATED

OF MULTIPLICATION.

ON.

ST MULTIPLES OF THE DIVISOR, THE STUDENT WILL SOLVE PROBLEMS WITH DIVIDENDS

Y S ON EQUATIONS THROUGH 81 DIVIDED BY 9.

O S THAT ARE MULTIPLES OF 10 AND 100 ONE DIGIT DIVISORS.

OR REMAINDERS, USING STANDARD ALGORITHM. ONE DIGIT DIVISORS, TWO DIGIT

0003030015	DIVIDE A 3 DIGIT NUMERAL BY A 1 DIGIT NUMERAL (NO	REMAINDER)	A 1
0003030016	FIND THE QUOTIENT AND REMAINDER FOR DIVISION PROBLEM	WITH A 2 DIGIT	DER
0003030017	SOLVES DIVISION EQUATIONS WITH REMAINDERS, USING	STANDARD ALGORITHM	TH P
0004030	DIVISION		
0004030001	USE THE NUMBER LINE TO ILLUSTRATE DIVISION PROBLEMS.		
0004030002	ACCURATELY SOLVE DIVISION PROBLEMS BY USING REPEATED	SUBTRACTION	BLE
0004030003	USE THE SUBTRACTIVE DIVISION ALGORITHM WITH TWO-PLACE	DIVISORS EN	ALG
0004030004	USE SENTENCES LIKE $* X 5 = 45 + 5 = X$ TO SHOW DIVISION	AS THE INVERSE	+
0004030005	RECOGNIZE GROUPS OF EQUIVALENT SETS IN OPERATIONS	INVOLVING D	T S
0004030006	RECOGNIZE THE SPECIAL ROLE OF 1 AS A DIVISOR.		
0004030007	EXHIBITS MASTERY OF DIVISION FACTS THROUGH 144 DIVIDED	BY 12.	FAC
0004030008	USES DIVISION ALGORITHM WITH ONE DIGIT DIVISOR, MULTI-	DIGITED QUOTIENTS	ONE
0004030009	CHECKS DIVISION PROBLEMS BY INVERSE OPERATION OF	MULTIPLICATION	NE
0004030010	FINDS ONE AND TWO DIGIT QUOTIENTS WHEN DIVISOR IS A TWO	DIGIT MULTI	ENT

(R) A 1 OIGIT NUMFRAL (NO
 REMAINOER).
 E ODER FOR DIVISION PROBLEM
 WITH A 2 OR 3 DIGIT NUMBER BY A 1 OIGIT NUMBER.
 D A WITH REMAINDERS, USING
 STANDARD ALGORITHM. ONE OIGIT DIVISORS, TWO OIGIT
 RATE DIVISION PROBLEMS.
 ION RLEMS BY USING REPEATED SUBTRACTION.
 EN ALGORITHM WITH TWO-PLACE DIVISORS ENDING IN 1, 2, 3, 4.
 NVE + 5 = X TO SHOW DIVISION AS THE INVERSE OF MULTIPLICATION.
 G D T SETS IN OPERATIONS INVOLVING DIVISION.
 1 AS A OIVISOR.
 FACTS THROUGH 144 DIVIDED BY 12.
 QUO ONE OIGIT DIVISOR, MULTI- OIGITEO QUOTIENT.
 CAT INVERSE OPERATION OF MULTIPLICATION.
 LT ENTS WHEN OIVISOR IS A TWO DIGIT MULTIPLE OF 10.

0004030011 SOLVES DIVISION EQUATIONS INVOLVING TWO-DIGIT DIVISORS, ONE-DIGIT QUOT

0004030012 FINOS AVERAGES ONE DIGIT DIVISOR, TWO DIGIT QUOTIENT.

0004030013 SOLVES DIVISION EQUATIONS INVOLVING TWO-DIGIT DIVISORS, ONE-DIGIT QUOT

0005030 DIVISION

0005030001 IDENTIFY THE DIVISOR, DIVIDEND, QUOTIENT, AND REMAINDER IN A DIVISION

0005030002 DIVIDE A 1,2,3,4, DIGIT NUMBER BY A 1 DIGIT NUMBER,

0005030003 GIVEN A 2 DIGIT DIVISOR, EXPRESS IT TO THE NEARER MULTIPLE OF 10

0005030004 USES DIVISION ALGORITHM TO SOLVE EQUATIONS INVOLVING TWO-DIGIT DIVIS
WITHOUT REMAINDERS.

0005030005 GIVEN A WORD PROBLEM REQUIRING THE OPERATION OF DIVISION, WRITE

0005030006 GIVEN A TWO-STEP WORD PROBLEM INVOLVING WHOLE NUMBERS, WRITE THE EQUAT

0005030007 DEMONSTRATE AN UNDERSTANDING OF THE FUNCTION OF 0 IN DIVISION.

0005030008 DEMONSTRATE AN UNDERSTANDING OF THE DIVISION PROCESS THROUGH THE USE

NG TWO-DIGIT DIVISORS, ONE-DIGIT QUOTIENTS, WITH REMAINDER.

R, TWO DIGIT QUOTIENT.

NG TWO-DIGIT DIVISORS, ONE-DIGIT QUOTIENTS, WITHOUT REMAINDER.

QUOTIENT, AND REMAINDER IN A DIVISION PROBLEM.

A 1 DIGIT NUMBER.

Y TO THE NEARER MULTIPLE OF 10 AND ESTIMATE THE QUOTIENT.

EQUATIONS INVOLVING TWO-DIGIT DIVISORS AND MULTI-DIGITED QUOTIENTS WITH AND

E OPERATION OF DIVISION, WRITE THE EQUATION AND FIND THE SOLUTION.

OLVING WHOLE NUMBERS, WRITE THE EQUATION AND FIND THE SOLUTION.

HE FUNCTION OF 0 IN DIVISION.

HE DIVISION PROCESS THROUGH THE USE OF EXPANDED NOTATION.

0006030002

FIND THE QUOTIENT FOR A DIVISION PROBLEM WITH A 2,3

DIGIT DIVISION

0006030003

EXPRESS REMAINDER IN DIVISION PROBLEM AS A COMMON

FRACTION IN PR

0006030004

GIVEN A DIVISION WORD PROBLEM WITH WHOLE NUMBERS,

WRITE EQUATION W

SION PROBLEM WITH A 2,3

DIGIT DIVISOR.

N PROBLEM AS A COMMON

FRACTION IN SIMPLEST FORM.

WITH WHOLE NUMBERS,

WRITE EQUATION FOR PROBLEM AND SOLVE EQUATION.

0003035	ESTIMATION	
0003035001	ESTIMATE THE SUM OF TWO NUMBERS. FOR EXAMPLE, $287 + 520$ IS APPROXIMATED	FOR
0003035002	STUDENT ROUNDS NUMBERS TO TENS AND HUNDREDS IN	ESTIMATING DIFFERENCES
0004035	ESTIMATION	
0004035001	USES ESTIMATION TO FIND MISSING FACTORS MULTIPLES OF	10 AND 100.
0004035002	ESTIMATES PRODUCTS BY ROUNDING TO APPROPRIATE PLACES.	APPROXIMATE
0004035003	ESTIMATES QUOTIENTS BY ROUNDING TO APPROPRIATE PLACES.	APPROXIMATE
0004035004	ESTIMATE THE PRODUCT OF TWO NUMBERS AND THE QUOTIENT OF TWO NUMBERS. FOR EXAMPLE, 90×1800 AND $795 \div 23$ IS APPROXIMATELY 800×20 OR 16000 .	APPROXIMATE
0005035	ESTIMATION	
0005035001	ESTIMATE DISTANCES TO THE NEAREST UNIT.	UNIT
0005035002	GIVEN A NUMBER TO MILLIONS, EXPRESS IT TO THE NEAREST	10, 100, 1000.
0005035003	ESTIMATE THE ANSWER TO AN ADDITION OR SUBTRACTION PROBLEM BY ROUNDING MINUEND TO THE NEAREST TEN, 100, 1000.	OF 000
0005035004	ROUNDS NUMBERS TO MILLIONS IN ESTIMATING SUMS.	MAT
0005035005	STUDENT ROUNDS NUMBERS TO MILLIONS IN ESTIMATING	DIFFERENCES.

FOR EXAMPLE, $287 + 520$ IS APPROXIMATELY $300 + 500$ OR 800 .

HUNDREDS IN ESTIMATING DIFFERENCES.

FACTORS MULTIPLES OF 10 AND 100.

APPROPRIATE PLACES.

APPROPRIATE PLACES.

FACTORS AND THE QUOTIENT OF TWO NUMBERS. FOR EXAMPLE, 21×88 IS APPROXIMATELY 20×90 OR 1800 .

UNIT.

ROUNDS IT TO THE NEAREST 10, 100, 1000.

OR SUBTRACTION PROBLEM BY ROUNDING THE ADDENDS OR SUBTRAHEND AND ESTIMATING SUMS.

IN ESTIMATING DIFFERENCES.

0006035

ESTIMATION

0006035001

ESTIMATE AND COMPARE PERIMETERS OF POLYGONS, AS

RECTANGLES
ERS

ES PER S OF POLYGONS, AS

RECTANGLES, TRIANGLES, PARALLELOGRAMS.

0005040 EXPONENTIAL NOTATION
0005040001 USE SIMPLE EXPONENTS.

0006040 EXPONENTIAL NOTATION
0006040001 WRITE A NUMERAL IN EXPANDED FORM AS THE INDICATED SUM OF PRODUCTS OF EACH AS
THE NUMERAL FOR A NUMBER GIVEN IN EXPANDED FORM. EX
0006040002 EXPRESS NUMBERS IN EXPANDED FORM BY USING EXPONENTIAL NOTATION BY
0006040003 USE EXPONENTIAL NOTATION TO REPRESENT NUMBERS. ESEN
0006040004 WRITE NUMBERS IN EXPANDED FORM WITH EXPONENTIAL NOTATION. TH
0006040005 GIVEN A NUMBER IN EXPONENTIAL FORM, DESCRIBE THE BASE AND EXPONENT, WITH M,
THE PRODUCT.

EACH AS THE INDICATED SUM OF PRODUCTS OF EACH DIGIT AND A MULTIPLE OF TEN. WRITE
IN EXPANDED FORM.

BY USING EXPONENTIAL NOTATION

PRESENT NUMBERS.

TH EXPONENTIAL NOTATION.

, WHEN, DESCRIBE THE BASE AND EXPONENT, WRITE AS PRODUCT OF LIKE FACTORS. FIND

0001045 FRACTIONS

0001045001 USES CORRECTLY AND RESPONDS TO USE OF TERMS WHOLE AND ONE-HALF

0001045002 STUDENT IDENTIFIES ONE-HALF OF ANY SYMMETRICAL OBJECT.

0001045003 IDENTIFIES ONE-HALF OF A SET OF OBJECTS. LIMIT OF 12.

0001045004 DEMONSTRATE ONE-HALF, ONE-FOURTH, OF A PHYSICAL UNIT.

0001045005 DIVIDES SET OF OBJECTS INTO ONE-HALF, ONE-THIRD, ONE-FOURTH.

0001045006 DIVIDES OBJECTS INTO ONE-HALF, ONE-THIRD, ONE-FOURTH.

0002045 FRACTIONS

0002045001 USES CONCRETE AND SEMI-CONCRETE DEVICES TO DIVIDE AN OBJECT OR SET

0002045002 IDENTIFIES ONE HALF, ONE THIRD, ONE FOURTH, ONE FIFTH OF AN OBJECT,

0002045003 IDENTIFIES TWO THIRDS AND THREE FOURTHS OF A WHOLE OBJECT.

0002045004 USES CONCRETE AND SEMI-CONCRETE DEVICES TO DIVIDE A SET OF OBJECTS

0002045005 IDENTIFIES ONE HALF, ONE THIRD, ONE FOURTH, ONE FIFTH SET OF OBJECTS,

0002045006 IDENTIFIES TWO-THIRDS AND THREE-FOURTHS OF A WHOLE SET OF OBJECTS

0002045007 RECOGNIZES THE NUMERALS OF ONE-HALF, ONE-THIRD, ONE-FOURTH, ONE-FIFTH

USE OF TERMS WHOLE AND ONE-HALF IN REFERENCE TO SETS OF OBJECTS.

ANY SYMMETRICAL OBJECT.

OF OBJECTS. LIMIT OF 12.

TH, OF A PHYSICAL UNIT.

NE-HALF, ONE-THIRD, ONE- FOURTH.

ONE-THIRD, ONE-FOURTH.

TE DEVICES TO DIVIDE AN OBJECT OR INTO HALVES, THIRDS, FOURTHS, FIFTHS.

ONE FOURTH, ONE FIFTH OF AN OBJECT, IN VARIOUS WAYS.

EE FOURTHS OF A WHOLE OBJECT.

TE DEVICES TO DIVIDE A SET OF OBJECTS INTO HALVES, THIRDS, FOURTHS, FIFTHS.

ONE FOURTH, ONE FIFTH SET OF OBJECTS IN VARIOUS WAYS.

EE-FOURTHS OF A WHOLE SET OF OBJECTS.

-HALF, ONE-THIRD, ONE- FOURTH, ONE-FIFTH, TWO-THIRDS, THREE-FOURTHS.

0003045	FRACIONS	
0003045001	RESPONDS TO NAMES OF COMMON FRACTIONS.	ONS.
0003045002	USES COMMON FRACTIONS IN DIVIDING OBJECTS.	OBJE
0003045003	USES COMMON FRACTIONS IN DIVIDING SETS.	SETS
0003045004	IDENTIFY TWO-THIRDS AND THREE-FOURTHS OF A WHOLE.	THS
0003045005	STUDENT IDENTIFIES FIFTHS, SIXTHS, AND EIGHTHS OF SETS OF OBJECTS.	AND
0003045006	RELATE THE PROPER FRACTION (HALVES, THIRDS, FOURTHS, FIFTHS, SIXTHS, SEVENTHS, EIGHTHS, TENTHS, ELEVENTHS, TWELFTHS) TO A GIVEN SET OR FIGURE.	TH
0003045007	STUDENT IDENTIFIES RATIONAL NUMBERS FOR INDICATING FIFTHS, SIXTHS, SEVENTHS, EIGHTHS, TENTHS, ELEVENTHS, TWELFTHS.	S FO
0003045008	STUDENT WRITES RATIONAL NUMBERS FOR INDICATING FIFTHS, SIXTHS, AND EIGHTHS.	R IN
0003045009	GIVEN THE FRACTION ONE-HALF, ONE-THIRD, ONE-FOURTH, ONE-FIFTH, ONE-SIXTH, ONE-EIGHTH, ONE-TENTH, ONE-TWELFTH, SUPPLY A MINIMUM OF TWO EQUIVALENT FRACTIONS FOR EACH.	HIRD FRA
0003045010	IDENTIFIES FRACTIONS RELATED TO ORDERED PAIRS OF NUMBERS, PARTS OF A WHOLE, AND DECIMALS. (FOURTHS, FIFTHS, SIXTHS, EIGHTHS), WITH ONE AS THE NUMERATOR AND THE OTHER AS THE DENOMINATOR.	DERE WIT
0003045011	IDENTIFIES EQUIVALENT FRACTIONS USING VISUAL AIDS.	ING
0003045012	SHOW TWO-FOURTHS = ONE-HALF, ETC., BY THE USE OF PHYSICAL OBJECTS.	BY
0003045013	SHOW TWO-FOURTHS = ONE-HALF, ETC., BY USE OF PICTURES.	BY
0003045014	RECOGNIZE GREATER THAN OR LESS THAN FOR THE FRACTIONS ONE-FOURTH, ONE-FIFTH, ONE-SIXTH, ONE-EIGHTH, ONE-TENTH, ONE-TWELFTH. (NOTE THAT FRACTIONS IS BEING USED HERE FOR RATIONAL NUMBERS).	N FO HEA

IONS.

OBJECTS.

SETS.

THS OF A WHOLE.

AND EIGHTHS OF SETS OF OBJECTS.

HS, , THIRDS, FOURTHS, FIFTHS, SIXTHS, OR EIGHTHS) TO THE SHADED REGION OF A

HS, S FOR INDICATING FIFTHS, SIXTHS, AND EIGHTHS.

EIG R INDICATING FIFTHS, SIXTHS, AND EIGHTHS.

XT HIRD, ONE-FOURTH, ONE- FIFTH, ONE-SIXTH, AND/OR ONE-EIGHTH, THE STUDENT WILL
FRACTIONS FOR EACH.

S DERED PAIRS OF NUMBERS, PARTS OF REGIONS AND SETS (HALVES, THIRDS,
D W WITH ONE AS THE NUMERATOR AND WITH NUMERATOR GREATER THAN ONE.

ING VISUAL AIDS.

ECT BY THE USE OF PHYSICAL OBJECTS.

BY USE OF PICTURES.

ONE N FOR THE FRACTIONS ONE-FOURTH, ONE-THIRD, ONE-HALF WITH PHYSICAL OBJECTS.
HERE FOR RATIONAL NUMBERS).

0003045015 ADD LIKE FRACTIONS WITH DENOMINATORS OF 2,3,4,5,6, OR 8 WHERE BOTH FRACTIONS.

0003045016 SOLVES WORD PROBLEMS INVOLVING FRACTIONS.

0004045 FRACTIONS

0004045001 TELL WHAT THE PARTS OF A FRACTION SYMBOL STANDS FOR,

0004045002 USES NUMERATOR, DENOMINATOR TO IDENTIFY FRACTIONAL PARTS.

0004045003 RECOGNIZE THAT A GIVEN FRACTION IS THE SAME AS A GIVEN PICTURE OF

0004045004 WRITE THE FRACTION SYMBOL FOR A GIVEN PART OF A WHOLE.

0004045005 GIVEN A PICTURE OF A FRACTION AND ITS FRACTION SYMBOL, DEMONSTRATE PICTURE INTO SMALLER EQUAL PARTS AND WRITING THE NEW SYMBOL.

0004045006 GIVEN A LINE SEGMENT DIVIDED INTO EQUAL PARTS AND A FRACTION SYMBOL YOUR KNOWLEDGE OF FRACTIONS BY DIVIDING THE LINE SEGMENT INTO SMALLER

0004045007 GIVEN TWO DIFFERENT FRACTIONS EACH OF WHICH IS LESS THAN ONE,

0004045008 WRITE THE FRACTION THAT EXPRESSES THE RELATIONSHIP BETWEEN PARTS

0004045009 WRITE AT LEAST THREE FRACTIONS FOR A GIVEN WHOLE NUMBER ON THE NUMBER

0004045010 GIVEN A POINT TO THE LEFT OF 1 ON THE NUMBER LINE, WRITE AT LEAST TWO NUMBER LINE.

0004045011 WRITE A FRACTION FOR A GIVEN POINT TO THE RIGHT OF NUMBER 1 ON

MINATORS OF 2, 3, 4, 5, 6, OR 8 WHERE BOTH OF THE ADDENDS AND THE SUM ARE PROPER
NG FRACTIONS.

CTION SYMBOL STANDS FOR.

TO IDENTIFY FRACTIONAL PARTS.

ON IS THE SAME AS A GIVEN PICTURE OF THE FRACTION.

A GIVEN PART OF A WHOLE.

AND ITS FRACTION SYMBOL, DEMONSTRATE YOUR KNOWLEDGE OF FRACTIONS BY DIVIDING THE
RTS AND WRITING THE NEW SYMBOL.

INTO EQUAL PARTS AND A FRACTION SYMBOL THAT NAMES A SECTION OF IT, DEMONSTRATE
Y DIVIDING THE LINE SEGMENT INTO SMALLER EQUAL PARTS AND WRITING THE NEW SYMBOL.

EACH OF WHICH IS LESS THAN ONE, WRITE THEM IN ORDER ON THE NUMBER LINE.

SSES THE RELATIONSHIP BETWEEN PART OF A LINE SEGMENT AND THE WHOLE SEGMENT.

S FOR A GIVEN WHOLE NUMBER ON THE NUMBER LINE.

1 ON THE NUMBER LINE, WRITE AT LEAST THREE FRACTIONS THAT NAME THAT POINT ON THE

ERIC THE RIGHT OF NUMBER 1 ON THE NUMBER LINE.

0004045012	WRITE AN IMPROPER FRACTION FOR A GIVEN PICTURE THAT	SHOWS A FRACTION	GIVE
0004045013	EXPRESS A GIVEN IMPROPER FRACTION AS A WHOLE NUMBER	AND A FRACTION	AS
0004045014	DETERMINES WHETHER A FRACTION IS IN LOWEST TERMS.		IN L
0004045015	WRITE A SET OF AT LEAST THREE FRACTIONS THAT ARE EQUAL TO EACH OTHER	TO EACH OTHER	CTIO ER.
0004045016	BUILOS SETS OF EQUIVALENT FRACTIONS FROM A GIVEN FRACTION AND	FRACTION AND	NS F
0004045017	IDENTIFIES FRACTIONS RELATED TO ORDERED PAIRS OF NUMBERS, PARTS	NUMBERS, PARTS	ROES R AN
0004045018	FOURTHS) WITH ONE AS THE NUMERATOR AND WITH NUMERATORS GREATER THAN 0	GREATER THAN 0	ACTI
0004045019	SOLVES WORD PROBLEMS INVOLVING FRACTIONS IN LOWEST TERMS.	TERMS.	
0004045020	SOLVES WORD PROBLEMS INVOLVING EQUIVALENT FRACTIONS.		UIVA
0004045021	STUDENT ADDS AND SUBTRACTS PROPER FRACTIONS HAVING LIKE DENOMINATORS.	DENOMINATORS.	FRA
0004045022	SOLVES ADDITION EQUATIONS INVOLVING LIKE FRACTIONS AND MIXED FRACTIONS	MIXED FRACTIONS	NG L
0005045	FRACTIONS		
0005045001	IDENTIFIES FRACTIONS RELATED TO SETS.		SETS.
0005045002	IDENTIFIES FRACTIONS RELATED TO PARTS OF REGIONS.		PARTS
0005045003	IDENTIFIES FRACTIONS RELATED TO ORDERED PAIRS.		ORDER

...GIVEN PICTURE THAT SHOWS A FRACTION GREATER THAN 1.

...AS A WHOLE NUMBER AND A FRACTION.

...IN LOWEST TERMS.

...CTIONS THAT ARE EQUAL TO EACH OTHER BY MULTIPLYING THE TOP AND THE BOTTOM OF
...ER.

...NS FROM A GIVEN FRACTION AND USES CROSS PRODUCT METHOD TO CHECK.

...ORDERED PAIRS OF NUMBERS, PARTS OF REGIONS, AND SETS (THROUGH TWENTY-
...AND WITH NUMERATORS GREATER THAN ONE.

...CTIONS IN LOWEST TERMS.

...UIVALENT FRACTIONS.

...FRACTIONS HAVING LIKE DENOMINATORS.

...NG LIKE FRACTIONS AND MIXED FRACTIONS.

...ETS.

...ARTS OF REGIONS.

...ROERED PAIRS.

0005045004	WRITE SENTENCES USING FRACTIONS TO REPRESENT PHYSICAL	SITUATIONS	ONS
0005045005	RECOGNIZE THE NUMERATOR AND THE DENOMINATOR IN A GIVEN	FRACTION.	HE
0005045006	FIND THE SUM OF TWO OR MORE PROPER FRACTIONS WITH LIKE	DENOMINATO	ROR
0005045007	FIND THE DIFFERENCE OF TWO PROPER FRACTIONS WITH LIKE	DENOMINATO	OPR
0005045008	BUILDS SETS OF EQUIVALENT FRACTIONS (MULTIPLIES BOTH	NUMERATOR	CTI
	SAME NUMBER, INCREASING THE NUMBER BY ONE EACH TIME).		IME
0005045009	FINDS GREATEST COMMON FACTOR FOR A SET OF NUMBERS.		FOR
0005045010	USES GREATEST COMMON FACTOR FOR A SET OF NUMBERS TO	REDUCE FRA	OR
0005045011	FINDS THE LOWEST TERMS FRACTION WHEN GIVEN A SET OF	EQUIVALENT	ON
0005045012	GIVEN A FRACTION RECOGNIZE WHETHER IT IS IN LOWEST	TERMS. IF	ETH
0005045013	SOLVES ADDITION EQUATIONS INVOLVING LIKE AND UNLIKE	FRACTIONS.	OLV
0005045014	RECOGNIZE THAT ZERO IS THE IDENTITY ELEMENT FOR	ADDITION IN	ENT
	WELL AS IN THE SET OF WHOLE NUMBERS.		UME
0005045015	GIVEN A PICTURE OR DIAGRAM WHICH IS SHADED TO SHOW A	MIXED NUMB	ICH
	SHADING.		
0005045016	IDENTIFIES AN IMPROPER FRACTION.		ON
0005045017	GIVEN AN IMPROPER FRACTION, EXPRESS IT AS A MIXED	NUMBER, THE	XPR

NSIONS TO REPRESENT PHYSICAL SITUATIONS.

THE DENOMINATOR IN A GIVEN FRACTION.

TO PROPER FRACTIONS WITH LIKE DENOMINATORS.

TO PROPER FRACTIONS WITH LIKE DENOMINATORS.

R FRACTIONS (MULTIPLIES BOTH NUMERATOR AND DENOMINATOR OF A GIVEN FRACTION BY THE NUMBER BY ONE EACH TIME).

FOR A SET OF NUMBERS.

RAC FOR A SET OF NUMBERS TO REDUCE FRACTIONS TO LOWEST TERMS.

NTION WHEN GIVEN A SET OF EQUIVALENT FRACTIONS.

IF WHETHER IT IS IN LOWEST TERMS. IF NOT, EXPRESS THE FRACTION IN LOWEST TERMS.

S. SOLVING LIKE AND UNLIKE FRACTIONS.

IN IDENTITY ELEMENT FOR ADDITION IN THE SET OF POSITIVE RATIONAL NUMBERS AS NUMBERS.

MBER WHICH IS SHADED TO SHOW A MIXED NUMBER, RECOGNIZE THE MIXED NUMBER SHOWN BY THE

ON.

THE EXPRESS IT AS A MIXED NUMBER, THE FRACTIONAL PART OF WHICH IS IN LOWEST TENS.

0005045018	GIVEN AN IMPROPER FRACTION, EXPRESS IT AS A MIXED IMPROPER FRACTION.	NUMBER, OR GIV	SS
0005045019	FIND THE SUM OF A WHOLE NUMBER AND A FRACTION, OR A	WHOLE NUMBER A	D A
0005045020	FIND THE SUM OF TWO OR THREE MIXED NUMBERS WITH LIKE	DENOMINATORS A	D N
0005045021	SOLVES ADDITION EQUATIONS INVOLVING MIXED NUMBERS.		NG
0005045022	SUBTRACT A FRACTION OR A MIXED NUMBER FROM A WHOLE	NUMBER AND WRI	MBE
0005045023	SOLVES SUBTRACTION EQUATIONS INVOLVING MIXED NUMBERS.		LVI
0005045024	FIND THE DIFFERENCE OF TWO MIXED NUMBERS WITH LIKE	DENOMINATORS A	NUM
0005045025	GIVEN A ONE-STEP WORD PROBLEM REQUIRING ADDITION OF LOWEST TERMS.	FRACTIONS, WRI	UIR
0005045026	GIVEN A ONE STEP WORD PROBLEM REQUIRING SUBTRACTION OF LOWEST TERMS.	FRACTIONS, WRI	UIR
0005045027	GIVEN A TWO STEP WORD PROBLEM INVOLVING ADDITION AND/OR THE ANSWER IN LOWEST TERMS.	SUBTRACTION OF	OLV
0006045	FRACTIONS		
0006045001	ADD UNLIKE FRACTIONS AND EXPRESS SUM IN LOWEST TERMS.		SUM
0006045002	ADD 2 OR 3 LIKE FRACTIONS AND EXPRESS SUM IN	LOWEST TERMS.	RES
0006045003	SOLVES ADDITION PROBLEMS WITH UNLIKE FRACTIONS AND MIXED NUMBERS.		IKE

IV. EXPRESS IT AS A MIXED NUMBER, OR GIVEN A MIXED NUMBER, EXPRESS IT AS AN
 A. AND A FRACTION, OR A WHOLE NUMBER AND A MIXED NUMBER.
 A. AND NUMBERS WITH LIKE DENOMINATORS AND EXPRESS THE ANSWER IN LOWEST TERMS.
 NG MIXED NUMBERS.
 RI. NUMBER FROM A WHOLE NUMBER AND WRITE THE ANSWER IN LOWEST TERMS.
 LIVING MIXED NUMBERS.
 AN. NUMBERS WITH LIKE DENOMINATORS AND WRITE THE ANSWER IN LOWEST TERMS.
 RI. REQUIRING ADDITION OF FRACTIONS, WRITE THE EQUATION AND FIND THE ANSWER IN
 RI. REQUIRING SUBTRACTION OF FRACTIONS, WRITE THE EQUATION AND EXPRESS THE ANSWER IN
 OF. INVOLVING ADDITION AND/OR SUBTRACTION OF FRACTIONS, WRITE THE EQUATION AND EXPRESS
 SUM IN LOWEST TERMS.
 . EXPRESS SUM IN LOWEST TERMS.
 VE FRACTIONS AND MIXED NUMBERS.

0006045004	EXPRESS GIVEN FRACTIONS IN LOWEST TERMS.	LOWE
0006045005	SUBTRACT A FRACTION FROM A FRACTION WHEN REGROUPING IS NOT NECESSA	RAC
0006045006	SUBTRACT UNLIKE FRACTIONS AND EXPRESS THE DIFFERENCE IN LOWEST TERM	D E
0006045007	STUDENT SOLVES SUBTRACTION PROBLEMS WITH UNLIKE FRACTIONS A	ROB
0006045008	MULTIPLY FRACTIONS OR MIXED FRACTIONS BY A WHOLE NUMBER AND EXPRESS	FRA
0006045009	MULTIPLY A FRACTION BY A FRACTION, A FRACTION BY A MIXED NUMBER, OR EXPRESS THE ANSWER IN LOWEST TERMS.	CTI TE
0006045010	SOLVE MULTIPLICATION PROBLEMS IN FRACTIONAL FORM.	S I
0006045011	SOLVE DIVISION PROBLEMS IN FRACTIONAL FORM.	RAC
0006045012	DIVIDE A WHOLE NUMBER BY A FRACTION OR A MIXED NUMBER, AND DIVIDE NUMBER.	RAC
0006045013	DIVIDE A FRACTION BY A FRACTION OR A MIXED FRACTION, AND DIVIDE A MI	ION

LOWEST TERMS.

FRACTION WHEN REGROUPING IS NOT NECESSARY AND WRITE THE DIFFERENCE IN LOWEST TERMS.

AND EXPRESS THE DIFFERENCE IN LOWEST TERMS.

PROBLEMS WITH UNLIKE FRACTIONS AND MIXED NUMERALS.

FRACTIONS BY A WHOLE NUMBER AND EXPRESS THE ANSWER IN LOWEST TERMS.

CTION, A FRACTION BY A MIXED NUMBER, OR A MIXED FRACTION BY A MIXED NUMBER, AND
TERMS.

S IN FRACTIONAL FORM.

FRACTIONAL FORM.

FRACTION OR A MIXED NUMBER, AND DIVIDE A FRACTION OR A MIXED FRACTION BY A WHOLE

ION OR A MIXED FRACTION, AND DIVIDE A MIXED FRACTION BY A MIXED FRACTION.

0001050	GEOMETRY (COORDINATE SYSTEMS)	
0001050001	USE THE NUMBER LINE TO ILLUSTRATE ADDITION AND	SUBTRACTION PRO AD
0003050	GEOMETRY (COORDINATE SYSTEMS)	
0003050001	RECOGNIZE THAT A POINT ON A LINE CAN BE DESCRIBED BY A	NUMBER (COORDIN CAN
0003050002	USES COORDINATES (NUMBER PAIRS) TO DETERMINE LOCATIONS	ON A PLANE. O D
0003050003	GRAPHS GIVEN POINTS IN A PLANE.	
0004050	GEOMETRY (COORDINATE SYSTEMS)	
0004050001	RECOGNIZE THAT A LINE SEGMENT IS A SET OF POINTS,	A S
0004050002	USES TERMS GRAPH, AXIS, COORDINATE AXES, WHEN GRAPHING	NUMBER PAIRS. E A
0004050003	RECOGNIZE THAT POINTS IN A PLANE (THE FIRST QUADRANT)	CAN BE REPRESENT (TH
	(COORDINATES).	
0004050004	GRAPHS SETS OF COORDINATES (FUNCTIONS). OBSERVES	PATTERN. ION
0005050	GEOMETRY (COORDINATE SYSTEMS)	
0005050001	GRAPHS SETS OF POINTS ON A NUMBER LINE. WHOLE NUMBERS	AND RATIONAL NU R LI
0005050002	GRAPHS NEGATIVE INTEGERS ON A NUMBER LINE.	BER

RO ADDITION AND SUBTRACTION PROBLEMS.

IN CAN BE DESCRIBED BY A NUMBER (COORDINATE).

TO DETERMINE LOCATIONS ON A PLANE.

A SET OF POINTS,

E AXES, WHEN GRAPHING NUMBER PAIRS.

EN (THE FIRST QUADRANT) CAN BE REPRESENTED BY (ORDERED) PAIRS OF NUMBERS

IONS). OBSERVES PATTERN.

NUM R LINE. WHOLE NUMBERS AND RATIONAL NUMBERS.

BER LINE.

0005050003

GRAPHS NEGATIVE INTEGERS ON A COORDINATE AXIS.

0003055 GEOMETRY (PLANE FIGURES) - ANGLES -

0003055001 IDENTIFIES A RIGHT ANGLE.

0003055002 NAMES A RIGHT ANGLE BY THREE POINTS.

0004055 GEOMETRY (PLANE FIGURES) - ANGLES -

0004055001 GIVEN 2 LINES THAT CROSS EACH OTHER, FIND THE EQUAL ANGLES.

0004055002 GIVEN ANGLES, THE STUDENT WILL IDENTIFY BY NON-METRIC JUDGMENT, THOSE IDENTICAL.

0005055 GEOMETRY (PLANE FIGURES) - ANGLES -

0005055001 MEASURES ANGLES. USES UNIT ANGLE, COMPASS AND PROTRACTOR.

0005055002 RECOGNIZE THAT A RIGHT ANGLE HAS THE MEASURE 90 DEGREES.

0005055003 RECOGNIZE ACUTE, RIGHT, AND OBTUSE ANGLES.

ENTS.

HER, FIND THE EQUAL ANGLES.

IDENTIFY BY NON-METRIC JUDGMENT, THOSE WHICH ARE RIGHT ANGLES.

, COMPASS AND PROTRACTOR.

THE MEASURE 90 DEGREES.

SE ANGLES.

RCLP

IDENT:

RCL

1

RCL

RCL 1

CIRCLE

OF A

1. D:

RED

CLE

CIRCLE -

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IC IDENTIFY AND NAME THIS GEOMETRIC FIGURE.

CIRCLE -

CIRCLE -

CIRCLE -

CIRCLE -

DI OF A GIVEN CIRCLE. CENTER, RADIUS, DIAMETER, CHORD.

, DIAMETER, CHORD OF A CIRCLE.

, CIRCLED ANGLES, INSCRIBED CIRCLES, CIRCUMSCRIBED CIRCLE.

CLE.

0005060	GEOMETRY (PLANE FIGURES) - CIRCLE -	CLE
0005060001	RECOGNIZE THE RADIUS AND DIAMETER OF A CIRCLE.	TER
0005060002	FINDS PERIMETER (CIRCUMFERENCE) OF A CIRCLE.	OF
0006060	GEOMETRY (PLANE FIGURES) - CIRCLE -	CLE
0006060001	FIND THE AREA OF A CIRCLE USING THE CORRECT FORMULA.	G TH
0006060002	RECOGNIZE THE RELATIONSHIP BETWEEN THE CIRCUMFERENCE	AND THE DIAMETER BETWEEN
0006060003	FIND THE CIRCUMFERENCE OF A CIRCLE USING THE CORRECT	FORMULA. CIRCLE

CLE -

TER OF A CIRCLE.

OF A CIRCLE.

CLE -

THE CORRECT FORMULA.

MEETWEEN THE CIRCUMFERENCE

AND THE DIAMETER OF A CIRCLE.

CIRCLE USING THE CORRECT

FORMULA.

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0002065	GEOMETRY (PLANE FIGURES) - CONGRUENCE -	
0002065001	RECOGNIZE CONGRUENT SEGMENTS AS SEGMENTS HAVING THE	SAME LENGTH AS
0002065002	RECOGNIZE CONGRUENT, PLANE FIGURES AS FIGURES WHICH FIT	ON ONE ANOTHER FIGURE
0003065	GEOMETRY (PLANE FIGURES) - CONGRUENCE -	
0003065001	RECOGNIZE CONGRUENT ANGLES.	
0003065002	RECOGNIZE THAT A RECTANGULAR SHEET OF PAPER CAN BE	DIVIDED INTO TWO EQUAL PARTS BY FOLDING.
0004065	GEOMETRY (PLANE FIGURES) - CONGRUENCE -	
0004065001	RECOGNIZE CONGRUENT ANGLES.	
0005065	GEOMETRY (PLANE FIGURES) - CONGRUENCE -	
0005065001	IDENTIFIES CONGRUENT SEGMENTS.	
0005065002	GIVEN SETS OF ANGLES THE STUDENT WILL MEASURE WITH A	PROTRACTOR TO DETERMINE
0005065003	RECOGNIZE THAT TRIANGLES ARE CONGRUENT IF CORRESPONDING	SIDES ARE CONGRUENT.
0006065	GEOMETRY (PLANE FIGURES) - CONGRUENCE -	
0006065001	USING A COMPASS AND/OR STRAIGHTEDGE, FIND WHETHER TWO	LINE SEGMENTS ARE CONGRUENT, AND WHETHER TWO TRIANGLES ARE CONGRUENT.

CONGRUENCE -
GTH AS SEGMENTS HAVING THE SAME LENGTH.

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NOT FIGURES AS FIGURES WHICH FIT ON ONE ANOTHER.

CONGRUENCE -

INT SHEET OF PAPER CAN BE DIVIDED INTO TWO OR MORE CONGRUENT PARTS THROUGH

CONGRUENCE -

CONGRUENCE -

S.

OR DENT WILL MEASURE WITH A PROTRACTOR TO FIND THOSE THAT ARE CONGRUENT.

E OF CONGRUENT IF CORRESPONDING SIDES ARE CONGRUENT AND CORRESPONDING ANGLES ARE

CONGRUENCE -

MENTEDGE, FIND WHETHER TWO LINE SEGMENTS ARE CONGRUENT, WHETHER TWO ANGLES ARE
TRIANGLES ARE CONGRUENT.

0002070 GEOMETRY (PLANE FIGURES) - CONSTRUCTIONS -

0002070001 DRAW SIMPLE GEOMETRIC FIGURES.

0003070 GEOMETRY (PLANE FIGURES) - CONSTRUCTIONS -

0003070001 FINDS A MID-POINT.

0003070002 CONSTRUCTS A RIGHT ANGLE IN A CIRCLE.

0004070 GEOMETRY (PLANE FIGURES) - CONSTRUCTIONS -

0004070001 REPRODUCE A LINE SEGMENT BY USING A COMPASS AND STRAIGHT EDGE.

0004070002 BISECT A LINE SEGMENT BY USING A COMPASS AND STRAIGHT- EDGE.

0004070003 DEMONSTRATE THROUGH PAPER FOLDING AN UNDERSTANDING OF A LINE AS AN INTERSECTION

0004070004 GIVEN THE RADIUS OR THE DIAMETER OF A CIRCLE, CONSTRUCT THE CIRCLE.

0004070005 CONSTRUCT A CIRCLE THROUGH THREE GIVEN POINTS THAT ARE NOT IN A STRAIGHT LINE
GIVEN TRIANGLE.

0004070006 CONSTRUCT CENTRAL AND INSCRIBED ANGLES, INSCRIBED CIRCLES, CIRCUMSCRIBED CIRCLES

0005070 GEOMETRY (PLANE FIGURES) - CONSTRUCTIONS -

0005070001 CONSTRUCTS A COPY OF A CIRCLE, SEGMENT.

CTIONS -

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CTIONS -

LE.

CTIONS -

A COMPASS AND STRAIGHT EDGE.

COMPASS AND STRAIGHT- EDGE.

AN UNDERSTANDING OF A LINE AS AN INTERSECTION OF TWO PLANES.

OF A CIRCLE, CONSTRUCT THE CIRCLE.

GIVEN POINTS THAT ARE NOT IN A STRAIGHT LINE, AND INSCRIBE A CIRCLE IN A

ANGLES, INSCRIBED CIRCLES, CIRCUMSCRIBED CIRCLE.

CTIONS -

MENT.

0005070002 BISECT AN ANGLE. (STUDENTS MAY DISCOVER SEVERAL DIFFERENT MAY

0005070003 BISECTS AN ANGLE, SEGMENT.

0005070004 RECONSTRUCT AN ANGLE AND A TRIANGLE BY USING A COMPASS AND A STRAIGHTEDGE

0006070 GEOMETRY (PLANE FIGURES) - CONSTRUCTIONS - DNS

0006070001 USING A PROTRACTOR AND A STRAIGHTEDGE, CONSTRUCT AND MEASURE AN ANGLE
2 DEGREES.

0006070002 USING A COMPASS, CONSTRUCT THE BISECTOR OF A GIVEN ANGLE. HE

0006070003 GIVEN THE DIAMETER OR RADIUS OF A CIRCLE, USE A COMPASS TO CONSTRUCT OF

MAY DISCOVER SEVERAL DIFFERENT CONSTRUCTIONS).

TRIANGLE BY USING A COMPASS AND A STRAIGHTEDGE.

CONSTRUCTIONS -

STRAIGHTEDGE, CONSTRUCT AND MEASURE ANGLES THE MEASURE SHOULD BE CORRECT TO WITHIN

THE BISECTOR OF A GIVEN ANGLE.

OF A CIRCLE, USE A COMPASS TO CONSTRUCT THE CIRCLE.

0001075

GEOMETRY (PLANE FIGURES) - ELIPSE -

0001075001

IDENTIFY ELLIPSE.

0002080 GEOMETRY (PLANE FIGURES) - LINES -

0002080001 NAMES LINE SEGMENTS BY ENDPOINTS.

0003080 GEOMETRY (PLANE FIGURES) - LINES -

0003080001 IDENTIFIES PARALLEL LINES.

0005080 GEOMETRY (PLANE FIGURES) - LINES -

0005080001 RECOGNIZE PERPENDICULAR LINES.

0005080002 IDENTIFIES PERPENDICULAR LINES.

0006080 GEOMETRY (PLANE FIGURES) - LINES -

0006080001 IDENTIFIES PARALLEL, INTERSECTING, AND PERPENDICULAR LINES.

0006080002 CONSTRUCT PARALLEL LINES.

0006080003 CONSTRUCT A LINE PERPENDICULAR TO A GIVEN LINE.

0002085	GEOMETRY (PLANE FIGURES) - OPEN/CLOSED FIGURES -	OSE
0002085001	READS DIRECTIONS WITH NAMES OF SIMPLE GEOMETRIC FIGURES.	PLE
0002085002	LABEL SIMPLE GEOMETRIC FIGURES.	
0002085003	RECOGNIZES OPEN AND CLOSED FIGURES.	
0002085004	INDICATES UNDERSTANDING OF TERM REGION BY SHADING	REGIONS OF REGI
0003085	GEOMETRY (PLANE FIGURES) - OPEN/CLOSED FIGURES -	LOSE
0003085001	DESCRIBE A GIVEN GEOMETRIC FIGURE AS BEING OPEN OR	CLOSED. AS
0003085002	RECOGNIZE OBJECTS OR DRAWINGS THAT ARE TRIANGLES,	QUADRILATE AR

1
CLOSED FIGURES -

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PLE GEOMETRIC FIGURES.

REGION BY SHADING

REGIONS OF SIMPLE CLOSED CURVES.

CLOSED FIGURES -

AS BEING OPEN OR

CLOSED.

ARE TRIANGLES,

QUADRILATERALS, AND CIRCLES.

0003090 GEOMETRY (PLANE FIGURES) - POLYGONS -

0003090001 IDENTIFIES PLANE GEOMETRIC FIGURES - TRAPEZOID,

PENTAGON, A

0003090002 ASSOCIATES THE NUMBER OF SIDES OF A POLYGON WITH THE

NUMBER OF D

0003090003 FINDS THE SUM OF THE ANGLES OF A TRIANGLE AND A

QUADRILATER

0003090004 USES BASIC FIGURES OF GEOMETRY TO CONSTRUCT ANGLES,

TRIANGLES,

0004090 GEOMETRY (PLANE FIGURES) - POLYGONS -

0004090001 RECOGNIZE ISOSCELES AND EQUILATERAL TRIANGLES AND

PARALLELOGR

0004090002 MEASURE PERIMETERS OF TRIANGLES AND QUADRILATERALS,

0004090003 FINDS PERIMETER OF POLYGONS BY MEASURING,

0004090004 FIND THE SUM OF THE MEASURES OF THE ANGLES OF A GIVEN

TRIANGLE OR

0004090005 FIND AND DESCRIBE THE VERTICES AND THE DIAGONALS OF A

GIVEN POLYGO

0005090 GEOMETRY (PLANE FIGURES) - POLYGONS -

0005090001 GIVEN A DRAWING OR A DESCRIPTION OF ANY POLYGON WITH NO MORE THAN F

0005090002 FIND THE PERIMETER OF ANY POLYGON WHEN GIVEN THE MEASURE OF EACH OF

0005090003 FIND THE AREA OF A PLANE REGION, SUCH AS RECTANGLES,

POLYGONS -

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FIGURES - TRAPEZOID,

PENTAGON, AND OTHER REGULAR POLYGONS.

ES OF A POLYGON WITH THE

NUMBER OF DIAGONALS.

OF A TRIANGLE AND A

QUADRILATERAL USING VISUAL AIDS.

RY TO CONSTRUCT ANGLES,

TRIANGLES, QUADRILATERALS, PARALLELOGRAMS.

POLYGONS -

LATERAL TRIANGLES AND

PARALLELOGRAMS.

LES AND QUADRILATERALS,

BY MEASURING.

OF THE ANGLES OF A GIVEN

TRIANGLE OR OF A GIVEN QUADRILATERAL WITHOUT MEASURING.

ES AND THE DIAGONALS OF A

GIVEN POLYGON.

POLYGONS -

TION OF ANY POLYGON WITH NO MORE THAN FOUR SIDES, IDENTIFY THE POLYGON.

POLYGON WHEN GIVEN THE MEASURE OF EACH OF ITS SIDES.

ION, SUCH AS RECTANGLES,

0000095	GEOMETRY (PLANE FIGURES) - QUADRILATERALS	LATE
0000095001	GIVEN A MODEL OF A SQUARE, IDENTIFY AND NAME THIS	GEOMETRIC FIGURE BY A
0000095002	GIVEN A MODEL OF A RECTANGLE, IDENTIFY AND NAME THIS	GEOMETRIC FIGURE IDENTIF
0001095	GEOMETRY (PLANE FIGURES) - QUADRILATERALS -	LATE
0001095001	IDENTIFY RECTANGLE.	
0001095002	REPRODUCE RECTANGLE FROM MEMORY.	
0001095003	IDENTIFY SQUARE.	
0001095004	REPRODUCE SQUARE FROM MEMORY.	
0002095	GEOMETRY (PLANE FIGURES) - QUADRILATERALS -	LATE
0002095001	RECOGNIZES AND NAMES RECTANGLE.	
0002095002	RECOGNIZES AND NAMES SQUARE.	
0003095	GEOMETRY (PLANE FIGURES) - QUADRILATERALS -	LATE
0003095001	FIND THE PERIMETER OF A RECTANGLE OR PARALLELOGRAM.	OR
0003095002	RECOGNIZES THAT BY JOINING MID-POINTS OF A QUADRILATERAL (WITHOUT CROSSING)	POINTS

ATERALS

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Y AND NAME THIS GEOMETRIC FIGURE.

NTIFY AND NAME THIS GEOMETRIC FIGURE.

ATERALS -

ATERALS -

ATERALS -

OR PARALLELOGRAM.

NTS OF A QUADRILATERAL (WITHOUT CROSSING LINES) A PARALLELOGRAM IS FORMED.

0003095003 GIVEN A PARALLELOGRAM MARKED OFF IN SQUARES, THE STUDENT WILL DETERMINE (CF

0004095 GEOMETRY (PLANE FIGURES) - QUADRILATERALS - QUAD

0004095001 RECOGNIZE THE FIGURE FORMED BY JOINING THE MIDPOINTS OF THE FOUR SIDES BY

0005095 GEOMETRY (PLANE FIGURES) - QUADRILATERALS - QUAD

0005095001 FINDS AREA, USING STANDARD FORMULA OF RECTANGLES AND PARALLELOGRAMS FORM

0005095002 USES PARALLEL AND PERPENDICULAR LINES TO CONSTRUCT QUADRILATERALS

DIFF IN SQUARES, THE STUDENT WILL DETERMINE THE NUMBER OF SQUARE UNITS.

QUADRILATERALS -

BY JOINING THE MIDPOINTS OF THE FOUR SIDES OF A GIVEN QUADRILATERAL.

QUADRILATERALS -

FORMULA OF RECTANGLES AND PARALLELOGRAMS.

PARALLEL LINES TO CONSTRUCT QUADRILATERALS.

0002100	GEOMETRY (PLANE FIGURES) - SETS OF POINTS -	PO
0002100001	LABEL POINTS IN LINE.	
0002100002	RECOGNIZE A POINT AS A POSITION.	
0002100003	IDENTIFIES CURVES, LINES, LINE SEGMENTS, CORNERS.	ME
0002100004	RECOGNIZE A LINE SEGMENT OR CURVE AS A SET OF POINTS.	AS
0002100005	RECOGNIZE A STRAIGHT LINE AS A SET OF POINTS WITH NO BEGINNING AND NO	OF
0002100006	RECOGNIZE A SIMPLE CURVE (IN A PLANE) AS ONE THAT DOES NOT CROSS ITSELF	NE)
0002100007	RECOGNIZE CLOSED SIMPLE CURVES.	
0002100008	RECOGNIZE THE INSIDE AND OUTSIDE OF SIMPLE CLOSED CURVES.	F S
0003100	GEOMETRY (PLANE FIGURES) - SETS OF POINTS -	PO
0003100001	LOCATES GIVEN POINTS IN A PLANE.	
0003100002	RECOGNIZE THAT MANY LINES MAY PASS THROUGH A POINT.	TH
0003100003	RECOGNIZE THAT THERE IS ONLY ONE LINE THROUGH TWO POINTS.	INE
0003100004	RECOGNIZE THAT TWO LINES CAN INTERSECT AT ONLY ONE POINT.	SEC
0003100005	RECOGNIZE RAYS AND ANGLES.	

POINTS -

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MENTS, CORNERS,

AS A SET OF POINTS.

OF POINTS WITH NO BEGINNING AND NO END.

NE) AS ONE THAT DOES NOT CROSS ITSELF.

OF SIMPLY CLOSED CURVES.

POINTS -

THROUGH A POINT.

LINE THROUGH TWO POINTS.

SECTION AT ONLY ONE POINT.

0004100	GEOMETRY (PLANE FIGURES) - SETS OF POINTS -	SETS
0004100001	RECOGNIZE A PLANE AS A FLAT SURFACE WHICH CONTAINS LINES AND POINTS	SUR
0004100002	RECOGNIZE AND DESCRIBE A POINT, A LINE, AND A PLANE.	INT
0004100003	RECOGNIZE AND DESCRIBE A LINE SEGMENT AND AN ANGLE.	NE S
0004100004	IDENTIFIES A SIMPLE CLOSED CURVE AS A REGION OF A PLANE.	CURV
0004100005	RECOGNIZE PARALLEL LINES AS LINES IN A PLANE WHICH DO NOT INTERSE	LIN
0004100006	INTERPRET A CIRCLE AS THE SET OF ALL POINTS IN A PLANE THAT ARE AT	ET C

SETS OF POINTS -

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SURFACE WHICH CONTAINS LINES AND POINTS.

INT, A LINE, AND A PLANE.

NE SEGMENT AND AN ANGLE.

CURVE AS A REGION OF A PLANE.

INES IN A PLANE WHICH DO NOT INTERSECT.

ET OF ALL POINTS IN A PLANE THAT ARE AT THE SAME DISTANCE FROM A FIXED POINT,

0003105

GEOMETRY (PLANE FIGURES) - SIMILARITY -

0003105001

RECOGNIZE THAT FIGURES ARE SIMILAR IF THEY HAVE THE SAME SHAPE. FOR EX IF

0004105

GEOMETRY (PLANE FIGURES) - SIMILARITY -

0004105001

RECOGNIZE THAT ALL CONGRUENT FIGURES ARE SIMILAR BUT NOT ALL SIMILAR FIG ES

ITY -

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IF THEY HAVE THE SAME SHAPE. FOR EXAMPLE, ALL SQUARES ARE SIMILAR.

ITY -

ES ARE SIMILAR BUT NOT ALL SIMILAR FIGURES ARE CONGRUENT.

0005110	GEOMETRY (PLANE FIGURES) - SYMBOLS AND NOTATION -	SYMB
0005110001	RECOGNIZES STANDARD GEOMETRIC NOTATION FOR POINTS, SEGMENTS,	C N
0005110002	USES ANGLE NOTATION (LESS THAN) TO DETERMINE CONGRUENCY FOR ANGLES	AN:
0006110	GEOMETRY (PLANE FIGURES) - SYMBOLS AND NOTATION -	SYMB
0006110001	GIVEN AN ILLUSTRATION OF A GEOMETRIC FIGURE, DESCRIBE IT USING THE	GEOM

SYMBOLS AND NOTATION -

PAGE

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IC NOTATION FOR POINTS,

SEGMENTS, RAYS, LINES.

STANDARD TO DETERMINE CONGRUENCY FOR ANGLES.

SYMBOLS AND NOTATION -

GEOMETRIC FIGURE, DESCRIBE IT USING THE CORRECT SYMBOL.

0003115 GEOMETRY (PLANE FIGURES) - SYMMETRY -

0003115001 RECOGNIZE SYMMETRY WITH RESPECT TO A LINE BY FOLDING PAPER CONTAINING
VERTICAL AXES OF SYMMETRY.

0004115 GEOMETRY (PLANE FIGURES) - SYMMETRY -

0004115001 RECOGNIZE THAT SOME FIGURES HAVE TWO OR MORE AXES OF SYMMETRY THROUGH

0005115 GEOMETRY (PLANE FIGURES) - SYMMETRY -

0005115001 RECOGNIZE SYMMETRY WITH RESPECT TO A POINT BY FOLDING A PAPER ALONG A LINE
FIGURE (CIRCLE, SQUARE).

RY -

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YNING A LINE BY FOLDING

PAPER CONTAINING SYMMETRICAL FIGURES ALONG THEIR

RY -

ROUGH TWO OR MORE AXES OF

SYMMETRY THROUGH PAPER FOLDING.

RY -

A LINE TO A POINT BY FOLDING A

PAPER ALONG A LINE THROUGH A CENTER OF SUCH A GEOMETRIC

0006120

GEOMETRY (PLANE FIGURES) - TERMINOLOGY -

0006120001

DEMONSTRATE KNOWLEDGE OF BASIC TERMS RELATED TO

GEOMETRY:

0000125 GEOMETRY PLANE FIGURES - TRIANGLE -

0000125001 GIVEN A MODEL OF A TRIANGLE; IDENTIFY AND NAME THIS GEOMETRIC FIGURE

0001125 GEOMETRY (PLANE FIGURES) - TRIANGLE -

0001125001 REPRODUCE TRIANGLE FROM MEMORY.

0002125 GEOMETRY (PLANE FIGURES) - TRIANGLE -

0002125001 RECOGNIZES AND NAMES TRIANGLE.

0005125 GEOMETRY (PLANE FIGURES) - TRIANGLE -

0005125001 DEMONSTRATE THAT THE SUM OF THE MEASURES OF THE ANGLES OF A TRIANGLE IS
CORNERS OF A TRIANGULAR PIECE OF PAPER.

0005125002 FINDS AREA OF TRIANGLE WHEN GIVEN BASE AND HEIGHT.

0005125003 COMPUTE THE AREA OF A TRIANGLE.

0006125 GEOMETRY (PLANE FIGURES) - TRIANGLE -

0006125001 SOLVE PROBLEMS INVOLVING THE MEASUREMENT OF INACCESSIBLE HEIGHTS AND DIS
SIMILAR TRIANGLES.

0006125002 RECOGNIZE THE PROPERTIES OF ISOSCELES TRIANGLES, SCALENE TRIANGLE
THE FACT THAT THE LONGEST SIDE OF A TRIANGLE IS OPPOSITE THE ANGLE OF GR

0006125003 FIND VOLUME OF A TRIANGLE USING $U = 1/2 BH$.

IDENTIFY AND NAME THIS GEOMETRIC FIGURE.

MEASURES OF THE ANGLES OF A TRIANGLE IS 180 DEGREES BY TEARING OFF AND MATCHING PAPER.

BASE AND HEIGHT.

MEASUREMENT OF INACCESSIBLE HEIGHTS AND DISTANCES INDIRECTLY USING THE PROPERTIES OF

ANGLES TRIANGLES, SCALENE TRIANGLES, AND EQUILATERAL TRIANGLES, SUCH AS
 GR A TRIANGLE IS OPPOSITE THE ANGLE OF GREATEST MEASURE.

$$= \frac{1}{2} RH.$$

0001130	GEOMETRY (SIZE AND SHAPE)	
0001130001	USE THE TERMS ROUND, FACE, EDGE, CORNER AND SURFACE.	
0001130002	OBSERVE DISTINGUISHING FEATURES OF SPHERES, RECTANGULAR PRISMS (BO	RE
0004130	GEOMETRY (SIZE AND SHAPE)	
0004130001	GIVEN A GROUP OF OBJECTS OR PICTURES, STUDENTS CAN OF MEASURE.	ACCURATELY PI
0004130002	GIVEN A GROUP OF OBJECTS OR PICTURES, STUDENTS CAN MEASURE.	ACCURATELY PI
0004130003	FIND AREAS OF SIMPLE REGIONS INFORMALLY FOR EXAMPLE, A CAN BE COVERED BY SIX ONE-INCH SQUARES (REGIONS),	RECTANGULAR CH
0004130004	GIVEN A GROUP OF OBJECTS OR PICTURES, STUDENTS CAN MEASURE.	ACCURATELY PI
0005130	GEOMETRY (SIZE AND SHAPE)	
0005130001	USES NOTATION FOR CONGRUENCY.	
0005130002	DEMONSTRATE UNDERSTANDING OF GEOMETRIC NOTATION BY SUCH AS SEGMENTS, LINES, ANGLES, RAYS.	USING THE S G E
0005130003	DEMONSTRATE UNDERSTANDING OF GEOMETRIC NOTATION AND GEOMETRIC OBJECTS.	CONGRUENCY G
0006130	GEOMETRY (SIZE AND SHAPE)	
0006130001	ESTIMATE THE AREA OF AN IRREGULAR PLANE REGION BY USE OF A GRID WHEN OF THE INNER AND OUTER AREAS.	BU

EDGE, CORNER AND SURFACE;

BOBLES OF SPHERES, RECTANGULAR PRISMS (BOXES), CYLINDERS, AND OTHER OBJECTS.

ELY PICTURES, STUDENTS CAN ACCURATELY ESTIMATE THE LENGTH USING THE CORRECT UNITS

ELY PICTURES, STUDENTS CAN ACCURATELY ESTIMATE AREA USING THE CORRECT UNITS OF

ULAR INFORMALLY FOR EXAMPLE, A RECTANGULAR REGION WITH DIMENSIONS 2 INCHES BY 3 INCHES
CH SQUARES (REGIONS),

ELY PICTURES, STUDENTS CAN ACCURATELY ESTIMATE VOLUME USING THE CORRECT UNITS OF

HE S GEOMETRIC NOTATION BY USING THE SYMBOLS FOR THE ABSTRACT GEOMETRIC OBJECTS,
ES, RAYS.

NCY GEOMETRIC NOTATION AND CONGRUENCY BY WRITING THE SYMBOLS FOR PAIRS OF CONGRUENT

HER REGULAR PLANE REGION BY USE OF A GRID WHERE AN APPROXIMATION TO THE AREA IS THE AVERAGE

0000135	GEOMETRY (SOLIDS)	
0000135001	GIVEN SET OF SOLID SHAPES (CONES, PYRAMIDS, NAME AND	SORT THEM ACCORD
0000135002	GIVEN A SET OF SOLID SHAPES OF CUBES, SPHERES, AND	CYLINDERS, NAME
	CATEGORIES.	
0002135	GEOMETRY (SOLIDS)	
0002135001	NAMES PICTURED REPRESENTATIONS OF SOLIDS - RECTANGLE,	SQUARE, CIRCLE,
0002135002	SELECTS CORRECT PICTURED REPRESENTATION WHEN NAME OF	SOLID IS GIVEN.
0002135003	DRAWS PICTURED REPRESENTATIONS OF SOLIDS WHEN NAME OF	SOLID IS GIVEN.
0004135	GEOMETRY (SOLIDS)	
0004135001	IDENTIFIES THE FACE, EDGE, VERTEX OF A CUBE AND	TRIANGULAR PYRAM
0004135002	CONSTRUCTS MODELS FROM GIVEN PATTERN FOR CUBE AND	TRIANGULAR PYRAM
0004135003	IDENTIFIES CYLINDER, CONE.	
0004135004	CONSTRUCTS MODEL FROM GIVEN PATTERN FOR CYLINDER AND	CONE.
0005135	GEOMETRY (SOLIDS)	
0005135001	COMPUTE THE SURFACE AREA OF A RECTANGULAR BOX.	

CORD PYRAMIDS, NAME AND SORT THEM ACCORDING TO THEIR CATEGORIES,

AME BES, SPHERES, AND CYLINDERS, NAME AND SORT THEM ACCORDING TO THEIR

E, SOLIDS - RECTANGLE, SQUARE, CIRCLE, TRIANGLE.

EN. TATION WHEN NAME OF SOLID IS GIVEN.

EN. SOLIDS WHEN NAME OF SOLID IS GIVEN.

YRAM OF A CUBE AND TRIANGULAR PYRAMID.

YRAM ERN FOR CUBE AND TRIANGULAR PYRAMID.

ERN FOR CYLINDER AND CONE.

TANGULAR BOX.

0005135002	FINDS SURFACE AREA FOR CUBIC FIGURE.	
0005135003	RECOGNIZE INFORMAL CONCEPTS OF VOLUME. FOR EXAMPLE A BOX WITH DIMEN CONTAINS 24 ONE-INCH CUBES.	
0005135004	FINDS VOLUME FOR CUBIC FIGURE USING STANDARD FORMULA.	
0005135005	RECOGNIZE COMMON POLYHEDRA SUCH AS TETRAHEDRON, A CUBE, A RECTANGU	
0005135006	IDENTIFY FACES, EDGES, VERTICES, AND DIAGONALS OF	COMMON POL
0005135007	DEMONSTRATE AN UNDERSTANDING OF VARIOUS POLYHEDRA BY	MAKING APP
0005135008	USE EULER'S FORMULA, NAMELY $V + F = E + 2$ WHERE V IS THE NUMBER OF THE NUMBER OF EDGES OF ANY POLYHEDRON.	
0006135	GEOMETRY (SOLIDS)	
0006135001	GIVEN CLOSED SURFACES, IDENTIFIES A RIGHT PRISM.	
0006135002	GIVEN CLOSED SURFACES, IDENTIFIES PYRAMIDS, CYLINDERS,	AND CONES.
0006135003	MAKE MODELS OF VARIOUS PRISMS AND FIND THEIR SURFACE	AREAS.
0006135004	FIND THE VOLUME OF A RECTANGULAR PRISM.	
0006135005	CONSTRUCT THE SEVEN SOMA PIECES WHEN GIVEN PICTURES OF	THEM.
0006135006	CONSTRUCT MODELS OF SPACE FIGURES (SPHERE, CYLINDER,	CONE, PRIS

FIGURE.

MENT OF VOLUME. FOR EXAMPLE A BOX WITH DIMENSIONS 2 INCHES BY 3 INCHES BY 4 INCHES

BE USING STANDARD FORMULA.

NGU SUCH AS TETRAHEDRON, A CUBE, A RECTANGULAR PRISM,

POL CES, AND DIAGONALS OF COMMON POLYHEDRA.

APP OF VARIOUS POLYHEDRA BY MAKING APPROPRIATE PAPER MODELS.

OF $V + F = E + 2$ WHERE V IS THE NUMBER OF VERTICES, F IS THE NUMBER OF FACES, AND E IS POLYHEDRON.

IFIES A RIGHT PRISM.

ES. IFIES PYRAMIDS, CYLINDERS, AND CONES.

S AND FIND THEIR SURFACE AREAS.

ULAR PRISM.

CES WHEN GIVEN PICTURES OF THEM.

RIS GURES (SPHERE, CYLINDER, CONE, PRISM, AND PYRAMID).

0006135007

GIVEN STRUCTURE OR PICTURE OF A STRUCTURE OF SOMA

PIECES, CONSTRU

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STRUCTURE OF SOMA

PIECES, CONSTRUCT A DUPLICATE.

0000140	GEOMETRY (SPACE RELATIONSHIPS)	
0000140001	USE THE TERMS INSIDE, OUTSIDE, AND ON AS RELATED TO	SOLID FIGURE
0000140002	INDICATE WHEN A GIVEN OBJECT IS BELOW, BESIDE AND	BETWEEN IN
0001140	GEOMETRY (SPACE RELATIONSHIPS)	
0001140001	NAME THE SETS OF POINTS INSIDE, ON, OR OUTSIDE A SIMPLE	CLOSED CURVE
0001140002	RECOGNIZE PHYSICAL REPRESENTATIONS OF POINTS, LINE	SEGMENTS, T
0003140	GEOMETRY (SPACE RELATIONSHIPS)	
0003140001	RECOGNIZES INTERIOR AND EXTERIOR OF GEOMETRIC FIGURES -	ANGLES, TRI
0003140002	DESCRIBE A GIVEN POINT AS BEING INSIDE, ON, OR OUTSIDE	A FIGURE. NG
0004140	GEOMETRY (SPACE RELATIONSHIPS)	
0004140001	INTERPRET SPACE AS THE SET OF ALL POINTS.	A
0004140002	DESCRIBE LINES AS INTERSECTIONS OF PLANES.	NS
0005140	GEOMETRY (SPACE RELATIONSHIPS)	
0005140001	RECOGNIZE THAT A PLANE IS DETERMINED BY THREE POINTS NOT ALL ON ONE	ER

FIGURE, AND ON AS RELATED TO SOLID FIGURES.

IN, BELOW, BESIDE AND BETWEEN IN RELATIONSHIP TO ONE OR MORE OTHER OBJECTS.

CURVE, ON, OR OUTSIDE A SIMPLE CLOSED CURVE.

S, PORTIONS OF POINTS, LINE SEGMENTS, AND PORTIONS OF A PLANE (FLAT SURFACES).

TRIANGLE OF GEOMETRIC FIGURES - ANGLES, TRIANGLE, QUADRILATERALS, CIRCLES.

E. LONG INSIDE, ON, OR OUTSIDE A FIGURE.

ALL POINTS.

NS OF PLANES.

ONE DETERMINED BY THREE POINTS NOT ALL ON ONE LINE.

0005140002 RECOGNIZE PARALLEL PLANES.

0006140 GEOMETRY (SPACE RELATIONSHIPS)

0006140001 IDENTIFIES SETS OF POINTS INSIDE, ON, OR OUTSIDE A CLOSED SURFACE. O

0006140002 RECOGNIZE THAT A LINE AND A PLANE ARE BOTH SUBSETS OF SPACE. A

0006140003 RECOGNIZE THAT A LINE (ONE DIMENSIONAL SPACE) IS A SUBSET OF A PLANE. IO

0006140004 RECOGNIZE THE REFLECTION OF A PLANE FIGURE IN A MIRROR AND DRAW DIAGRAM. NE

ACE. ON, OR OUTSIDE A CLOSED SURFACE.

ARE BOTH SUBSETS OF SPACE.

PLA TIONAL SPACE) IS A SUBSET OF A PLANE (TWO-DIMENSIONAL SPACE).

AGRA NE FIGURE IN A MIRROR AND DRAW DIAGRAMS.

0003145	GRAPHS	
0003145001	EXPLAIN SPECIFIC DATA PRESENTED IN A BAR OR PICTURE	GRAPH.
0003145002	CONSTRUCT A PICTURE GRAPH FROM GIVEN DATA.	
0005145	GRAPHS	
0005145001	CONSTRUCT SIMPLE PICTURE GRAPHS.	
0005145002	CONSTRUCT SIMPLE LINE GRAPHS.	
0005145003	CONSTRUCT SIMPLE BAR GRAPHS.	
0006145	GRAPHS	
0006145001	CONSTRUCT A PICTURE GRAPH USING DATA PRESENTED IN A	DIFFERENT
0006145002	CONSTRUCT A LINE GRAPH USING DATA PRESENTED IN A	DIFFERENT
0006145003	CONSTRUCT A BAR GRAPH USING DATA PRESENTED IN A	DIFFERENT
0006145004	CONSTRUCT A CIRCLE GRAPH USING DATA PRESENTED IN A	DIFFERENT
0006145005	COLLECTS DATA.	
0006145006	REPRESENTS DATA IN TABLES AND GRAPHS.	
0006145007	INTERPRETS DATA.	

ED IN A BAR OR PICTURE GRAPH.

M GIVEN DATA.

HS.

NT P NG DATA PRESENTED IN A DIFFERENT PICTURE GRAPH.

NT L DATA PRESENTED IN A DIFFERENT LINE GRAPH.

NT B DATA PRESENTED IN A DIFFERENT BAR GRAPH.

NT C NG DATA PRESENTED IN A DIFFERENT CIRCLE GRAPH.

GRAPHS.

0004150 INVERSE (ADDITIVE)

0004150001 RECOGNIZE THE INVERSE RELATION BETWEEN ADDITION
342 = 1067 AND 1067 - 725 = 342, AND 1067 - 342 = 725.

SENTENCES AND
AN

0005150 INVERSE (ADDITIVE)

0005150001 APPLY THE CONCEPT OF THE INVERSE RELATIONSHIPS OF

ADDITION AND SUBTRACTION

ND BETWEEN ADDITION
AND $1067 - 342 = 725$.

SENTENCES AND TWO SUBTRACTION SENTENCES, SUCH AS $725 +$

0 SUB RELATIONSHIPS OF

ADDITION AND SUBTRACTION.

0005155 INVERSE (MULTIPLICATIVE)

0005155001 APPLIES THE CONCEPT OF INVERSE RELATIONSHIP OF MULTIPLICAT RS

0004165 MEASUREMENT (AREA)

0004165001 USES ARBITRARY STANDARD METRIC UNITS TO MFASURE AREA. RI

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CAT SE RELATIONSHIP OF

MULTIPLICATION AND DIVISION.

RIC UNITS TO MEASURE AREA.

0001170 MEASUREMENT (DRY)

0001170001 IDENTIFIES DOZEN AND HALF DOZEN OBJECTS.

0002170 MEASUREMENT (DRY)

0002170001 USE STANDARD UNITS TO NEAREST WHOLE UNIT FOR WEIGHT (POUNDS).

0004170 MEASUREMENT (DRY)

0004170001 SOLVES PROBLEMS USING CONVERSIONS OF DRY MEASURES (OUNCES, POUNDS)

OBJECTS.

LE UNIT FOR WEIGHT (POUNDS).

UNDS OF DRY MEASURES (OUNCES, POUNDS, PECKS, BUSHELS, TONS).

0000175 MEASUREMENT (INSTRUMENTS)

0000175001 DEFINE CALENDAR.

0000175002 DEFINE CLOCK.

0000175003 DEFINE THERMOMETER.

0001175 MEASUREMENT (INSTRUMENTS)

0001175001 IDENTIFY VARIOUS INSTRUMENTS OF MEASUREMENT OF TIME, TEMPERATURE,
THERMOMETERS, SCALES, RULERS.

0002175 MEASUREMENT (INSTRUMENTS)

0002175001 IDENTIFY PROPER INSTRUMENTS FOR MEASURING DIFFERENT OBJECTS.

OF MEASUREMENT OF TIME, TEMPERATURE, WEIGHT, AND LENGTH, SUCH AS CLOCKS,

OR MEASURING DIFFERENT OBJECTS,

0000180	MEASUREMENT (LINEAR)	
0000180001	DEFINE RULER.	
0001180	MEASUREMENT (LINEAR)	
0001180001	USE NON-STANDARD UNITS OF LINEAR MEASURE AND LIQUID PAPER CUP FOR LIQUID MEASURE.	MEASURE, SUCH A
0001180002	RECOGNIZES USE OF RULER AND YARDSTICK IN INCHES AND	FEET.
0001180003	DETERMINE WHICH OF TWO LINE SEGMENTS IS THE LONGER OR	THE SHORTER, OR
0001180004	FINDS THE INCH MEASURE OF A LINE SEGMENT.	
0002180	MEASUREMENT (LINEAR)	
0002180001	IDENTIFIES INCH, FOOT, YARD AS STANDARD U.S. MEASURE.	
0002180002	USES STANDARD UNITS TO THE NEAREST WHOLE UNIT FOR	LINEAR MEASURE
0002180003	REPRESENTS LENGTH OF ITEMS TO NEAREST INCH IN LINEAR	MEASURES.
0002180004	MEASURES ITEMS USING THE INCH SCALES.	
0002180005	MAKE A RULER WITH DIVISIONS SHOWING HALF UNITS.	
0002180006	MEASURES ITEMS USING THE CENTIMETER SCALES.	

CH A MEASURE AND LIQUID MEASURE, SUCH AS A PENCIL OR BOOK FOR LENGTH, AND A
STICK IN INCHES AND FEET.
OR ENTS IS THE LONGER OR THE SHORTER, OR WHETHER THEY ARE THE SAME LENGTH,
SEGMENT.

TANDARD U.S. MEASURE,
RE ST WHOLE UNIT FOR LINEAR MEASURE (INCHES AND FEET).

AREST INCH IN LINEAR MEASURES.

ALES.

ING HALF UNITS.

TER SCALES.

0003180	MEASUREMENT (LINEAR)	
0003180001	USES THE TERM SEGMENT, SQUARE, CUBIC TO DISTINGUISH	GIVEN MEAS
0003180002	MEASURES LENGTH TO THE NEAREST HALF INCH.	
0003180003	USING A RULER, MEASURE OBJECTS TO THE NEAREST QUARTER	INCH.
0003180004	USES ARBITRARY STANDARD (ENGLISH) UNITS TO MEASURE	LENGTH, AR
0003180005	USES METRIC UNITS TO MEASURE LENGTH, AREA, VOLUME,	
0003180006	MAKES COMPARISONS OF METRIC AND STANDARD (ENGLISH)	MEASURES.
0003180007	GIVEN A SCALE, MEASURE DISTANCES ON A MAP.	
0004180	MEASUREMENT (LINEAR)	
0004180001	USES ARBITRARY STANDARD (ENGLISH) UNITS TO MEASURE	LENGTH.
0004180002	USES METRIC UNITS TO MEASURE LENGTH.	
0004180003	SOLVES PROBLEMS USING CONVERSIONS OF LINEAR MEASURES	(INCHES, FEET)
0005180	MEASUREMENT (LINEAR)	
0005180001	EXPRESS LINEAR MEASURES OF INCHES AS FEET, INCHES AS	YARDS, FEET
0005180002	FIND THE SUM OF THREE LIKE LINEAR ENGLISH MEASURES	EXPRESS AN

MEASURES, CUBIC TO DISTINGUISH GIVEN MEASURES.

AT HALF INCH.

TO THE NEAREST QUARTER INCH.

ARISH; UNITS TO MEASURE LENGTH, AREA, VOLUME.

LENGTH, AREA, VOLUME.

ES. AND STANDARD (ENGLISH) MEASURES.

ICES ON A MAP.

ISH) UNITS TO MEASURE LENGTH.

LENGTH.

S, FRACTIONS OF LINEAR MEASURES (INCHES, FEET, YARDS, MILES).

FEET, INCHES AS FEET, INCHES AS YARDS, FEET AS YARDS AND FEET AS MILES, AND VICE VERSA.

AND NEAR ENGLISH MEASURES EXPRESS ANSWER IN SIMPLEST FORM.

0005180003	GIVEN A RULER WITH 16 DIVISIONS TO THE INCH, MEASURE A	GIVEN LINE SEGMENT
0005180004	USING A TABLE OF METRIC MEASURES, EXPRESS LINEAR DECIMETERS, DECIMETERS AS METERS, CENTIMETERS AS METERS,	MEASURES OF MILES, FEET, INCHES, AND METERS AS KILOMETERS
0005180005	RECOGNIZE THE SIMILARITY OF MAPS MADE WITH DIFFERENT	SCALES.
0006180	MEASUREMENT (LINEAR)	
0006180001	MEASURES LENGTHS OF OBJECTS IN EIGHT AND SIXTEENTH	INCHES.
0006180002	USE THE METRIC SYSTEM OF MEASURE FOR LENGTH.	
0006180003	USING ENGLISH UNITS, MAKE LINEAR MEASUREMENTS TO A SIMPLEST TERMS.	GIVEN LEVEL OF PRECISION

EGM TO THE INCH, MEASURE A GIVEN LINE SEGMENT TO THE NEAREST EIGHTH OF AN INCH.

MIL EXPRESS LINEAR MEASURES OF MILLIMETERS AS CENTIMETERS, CENTIMETERS AS
S K CENTIMETERS AS METERS, AND METERS AS KILOMETERS, AND VICE VERSA.

MADE WITH DIFFERENT SCALES.

GHT AND SIXTEENTH INCHES.

FOR LENGTH.

OF MEASUREMENTS TO A GIVEN LEVEL OF ACCURACY AND RECORD YOUR MEASURES IN

0001185	MEASUREMENT (LIQUID)	
0001185001	DEVELOP AN UNDERSTANDING OF GALLON, HALF-GALLON, AS	UNITS OF LIQUID MEASURE
0001185002	MEASURES WITH CUPS, PINTS, QUARTS.	
0002185	MEASUREMENT (LIQUID)	
0002185001	IDENTIFIES CONTAINERS AS CUPS, PINTS, QUARTS, GALLONS.	
0002185002	IDENTIFIES CONTAINERS' RELATION TO EACH OTHER.	
0002185003	USE STANDARD UNITS TO NEAREST WHOLE UNIT FOR LIQUID	MEASURE (PINTS, QUARTS, GALLONS)
0002185004	SOLVES SIMPLE WRITTEN PROBLEMS USING CUPS, PINTS,	QUARTS, GALLONS.
0003185	MEASUREMENT (LIQUID)	
0003185001	MEASURES CAPACITY IN OUNCES, CUPS, PINTS, QUARTS,	GALLONS.
0003185002	USE STANDARD UNITS OF MEASURE, SUCH AS CUPS, GALLONS,	OUNCES, IN PINTS, QUARTS, GALLONS.
0004185	MEASUREMENT (LIQUID)	
0004185001	EXPRESS DIFFERENT NAMES FOR THE SAME MEASURE.	
0004185002	SOLVES PROBLEMS USING CONVERSIONS OF LIQUID MEASURES	(TABLESPOONS, TEASPOONS, CUPS, PINTS, QUARTS, GALLONS)

OF L GALLON, HALF-GALLON, AS UNITS OF LIQUID MEASUREMENT.

QUARTS.

S, PINTS, QUARTS, GALLONS.

ION TO EACH OTHER.

(P T WHOLE UNIT FOR LIQUID MEASURE (PINTS AND QUARTS):

GALLONS USING CUPS, PINTS, QUARTS, GALLONS.

CUPS, PINTS, QUARTS, GALLONS.

IN E, SUCH AS CUPS, GALLONS, OUNCES, IN DETERMINING WEIGHT.

THE SAME MEASURE.

POOR SIONS OF LIQUID MEASURES (TABLESPOONS, OUNCES, CUPS, PINTS, QUARTS, GALLONS).

0005185 MEASUREMENT (LIQUID)

0005185001 USING A TABLE OF LIQUID MEASURES, EXPRESS CUPS AS PINTS, CUPS AS QUARTS,
FLUID OUNCES AS CUPS, AND FLUID OUNCES AS PINTS, AND VICE VERSA.

0005185002 ADD OR SUBTRACT LIQUID MEASURES, EXPRESSING ANSWERS IN SIMPLEST FORM.

0006185 MEASUREMENT (LIQUID)

0006185001 USING ENGLISH UNITS, MAKE LIQUID MEASUREMENTS TO A GIVEN LEVEL OF
SIMPLEST TERMS.

RTS, EXPRESS CUPS AS PINTS, CUPS AS QUARTS, QUARTS AS GALLONS, PINTS AS QUARTS,
OUNCES AS PINTS, AND VICE VERSA.

RM. EXPRESSING ANSWERS IN SIMPLEST FORM.

OF MEASUREMENTS TO A GIVEN LEVEL OF ACCURACY AND RECORD YOUR MEASURES IN

0006190

MEASUREMENT (PRECISION)

0006190001

EXPLAIN WHY MEASUREMENTS ARE NOT COMPLETELY ACCURATE AND WHAT IS MEASUREMENT NOT

0006190002

WORK WITH APPROXIMATE NUMBERS. FOR EXAMPLE, KNOW THAT THE AREA OF A SQUARE IS
INCHES TO THE NEAREST HUNDREDTH OF AN INCH AS AN AREA BETWEEN 6. AND 7. DOTS

S ME NOT COMPLETELY ACCURATE AND WHAT IS MEANT BY STANDARD UNITS OF MEASURE.

CA O S. FOR EXAMPLE, KNOW THAT THE AREA OF A RECTANGLE WHOSE SIDES MEASURE 6.5 AND 3.6
N 6. DTH OF AN INCH AS AN AREA BETWEEN 6.4 X 3.5 AND 6.6 X 3.7 SQUARE INCHES.

0005195

MEASUREMENT (RATE)

0005195001

DEMONSTRATE UNDERSTANDING OF RATE CONCEPT, BY APPLYING EQUATIONS IN WR

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E CONCEPT, BY APPLYING EQUATIONS IN WRITTEN EXERCISES.

00'0200 MEASUREMENT (RELATIVE)

0000200001 USE APPROPRIATELY SUCH WORDS AS LONGER, SHORTER,

HEAVIER, LIGHTER, A

0001200 MEASUREMENT (RELATIVE)

0001200001 USES CONCRETE OBJECTS AND PICTURES TO COMPARE SIZE,

HEIGHT, LENGTH, OBJECT

0005200 MEASUREMENT (RELATIVE)

0005200001 RECOGNIZE THAT ALL MEASUREMENT INVOLVES APPROXIMATION.

ENT

0003205 MEASUREMENT (TEMPERATURE)

0003205001 READS TEMPERATURES USING FAHRENHEIT THERMOMETER.

RE

0003205002 RECORDS TEMPERATURES USING FAHRENHEIT THERMOMETER.

FAH

0003205003 FIND THE DIFFERENCE BETWEEN TWO GIVEN TEMPERATURES.

TW

AS LONGER, SHORTER,

HEAVIER, LIGHTER, LOWER, LARGER, SMALLER.

LENCTURES TO COMPARE SIZE,

HEIGHT, LENGTH, AND SIZE POSITION.

ENT INVOLVES APPROXIMATION.

ARENHEIT THERMOMETER.

FAHRENHEIT THERMOMETER.

TWO GIVEN TEMPERATURES.

0006205

MEASUREMENT (TEMPERATURE)

0006205001

RECORD TO THE NEAREST DEGREE TEMPERATURE READINGS ON THE FAHRENHEIT SCALE.

0000210 MEASUREMENT (TIME)

0000210001 TELL THE NAME OF THE MONTH AND THE DAY OF THE WEEK.

0000210002 MAKE COMPARISONS IN TIME AND COUNT WHOLE UNITS OF TIME (DAY, WEEK

0001210 MEASUREMENT (TIME)

0001210001 IS ABLE TO READ CALENDAR.

0001210002 IDENTIFIES NUMBER OF DAYS IN WEEK, MONTH, YEAR.

0001210003 KNOWS TIME PERIODS - HOUR, DAY, WEEK, MONTH.

0001210004 READS NUMERALS TO 12 ON CLOCK FACE ORALLY.

0001210005 WRITE NUMERALS TO 12 ON CLOCK FACE.

0001210006 IDENTIFIES AND DEMONSTRATES HOUR AND HALF HOUR.

0001210007 TELL TIME TO THE NEAREST HALF-HOUR.

0001210008 DEMONSTRATE AN UNDERSTANDING OF TELLING TIME BY SETTING THE HANDS OF
QUARTER HOUR.

0001210009 RECOGNIZE THE WRITTEN TIME (HOUR, HALF HOUR, QUARTER HOUR AND F
FACE.

0002210 MEASUREMENT (TIME)

0002210001 RELATE CONCEPT OF TIME MEASUREMENT WITH SUCH UNITS AS YEAR, MONTH

ND THE DAY OF THE WEEK.

EEK COUNT WHOLE UNITS OF TIME (DAY, WEEK, MONTH, YEAR).

WEEK, MONTH, YEAR.

AY, WEEK, MONTH.

K FACE ORALLY.

K FACE.

HOUR AND HALF HOUR.

F-HOUR.

DS OF TELLING TIME BY SETTING THE HANDS OF A CLOCK TO A GIVEN HOUR, HALF HOUR, AND

D F HOUR, HALF HOUR, QUARTER HOUR AND FIVE MINUTES) REPRESENTED ON A GIVEN CLOCK

ONTH REMENT WITH SUCH UNITS AS YEAR, MONTH, WEEK, DAY, HOUR, MINUTE AND SECOND.

0002210002 TELLS TIME TO THE HOUR AND HALF HOUR.

0002210003 TELL TIME TO THE NEAREST QUARTER HOUR.

0003210 MEASUREMENT (TIME)

0003210001 IDENTIFIES CALENDAR UNITS, NUMBER OF DAYS IN A WEEK, EACH MONTH.

0003210002 COMPLETES CALENDARS.

0003210003 WRITES DATE IN WORDS.

0003210004 WRITES GIVEN DATE IN NUMERALS.

0003210005 USES VISUAL AIDS IN TIME UNITS.

0003210006 USES MORNING, AFTERNOON, NIGHT, DIVIDING DAY AT NOON AND MIDNIGHT.

0003210007 USES A.M. OR P.M. IN WRITING TIME.

0003210008 READS ANY TIME ON CLOCK FACE.

0003210009 SHOWS ANY TIME USING CLOCK FACE.

0003210010 SOLVES WRITTEN PROBLEMS INVOLVING TIME UNITS.

0004210	MEASUREMENT (TIME)	
0004210001	READS TIME ON CLOCK WITH SECOND HAND.	
0004210002	IDENTIFIES EQUIVALENT VALUES FOR DECADE, CENTURY,	NUMBER OF
0004210003	SOLVES WRITTEN PROBLEMS INVOLVING ADDITION AND REGROUPINGS.	SUBTRACTION
0004210004	SOLVE PROBLEMS INVOLVED IN CONVERTING DAYS TO WEEKS,	HOURS TO DAYS
0004210005	SOLVES PROBLEMS IN READING BUS, TRAIN, PLANE SCHEDULES.	
0004210006	NAMES VERY SMALL, VERY LARGE TIME UNITS (SECONDS,	MILLENNIUM:
0005210	MEASUREMENT (TIME)	
0005210001	ADD OR SUBTRACT MEASURES OF TIME (CENTURIES, YEARS,	MINUTES, E
0005210002	ADDS UNITS OF TIME EXTENDING.	
0005210003	SUBTRACTS UNITS OF TIME EXTENDING.	
0005210004	DEMONSTRATE UNDERSTANDING OF TIME CONCEPT BY APPLYING	EQUATIONS
0006210	MEASUREMENT (TIME)	
0006210001	EXPRESS TIME GIVEN ON 24 HOUR BASIS, ON A 12 HOUR BASIS	AND VICE VERSA

COND HAND.

OF S FOR DECADE, CENTURY,

NUMBER OF DAYS IN A LEAP YEAR.

TION INVOLVING ADDITION AND

SUBTRACTION OF TWO OR THREE TIME UNITS, ONE OR TWO

O D CONVERTING DAYS TO WEEKS,

HOURS TO DAYS, MINUTES TO HOURS, SECONDS TO MINUTES.

BUS, TRAIN, PLANE SCHEDULES.

UM: E TIME UNITS (SECONDS,

MILLENNIUM).

, ET TIME (CENTURIES, YEARS,

MINUTES, ETC,) EXPRESSING ANSWERS IN SIMPLEST FORM.

G.

ENDING.

NS F TIME CONCEPT BY APPLYING

EQUATIONS IN WRITTEN EXERCISES.

E V HOUR BASIS, ON A 12 HOUR BASIS AND VICE VERSA.

0004215 MEASUREMENT (VOLUME)

0004215001 USES ARIBITRARY STANDARD (ENGLISH) UNITS TO MEASURE VOLUME.

0004215002 USES ARBITRARY STANDARD METRIC UNITS TO MFASURE VOLUME.

0005215 MEASUREMENT (VOLUME)

0005215001 RELATES LIQUID MEASURE TO CUBIC MEASURE.

0002220	MULTIPLICATION	
0002220001	ADD EQUIVALENT SETS.	
0002220002	FINDS PRODUCTS USING PRODUCT SETS (MANY TO MANY	MATCHING
0002220003	FINDS PRODUCTS USING REPEATED ADDITION.	
0002220004	FINDS PRODUCTS USING NUMBER LINES.	
0002220005	FINDS PRODUCTS USING EQUIVALENT SETS.	
0002220006	FINDS PRODUCTS USING ARRAYS.	
0002220007	IDENTIFIES THE SYMBOL X (TIMES).	
0002220008	RECOGNIZES THE MULTIPLICATIVE PROPERTIES OF ZERO AND	ONE.
0002220009	RECOGNIZE A MULTIPLICATION FACT THAT REPRESENTS A GIVEN	REPEATED
0002220010	USE THE MULTIPLICATION FACTS THROUGH THE PRODUCT 18.	
0002220011	ONE FACTOR = 2, SECOND FACTOR NO GREATER THAN 14,	STUDENT S
	VERTICAL FORM.	
0002220012	MULTIPLY 2 NUMERALS WHERE THE PRODUCT IS NOT GREATER	THAN 25.
0002220013	USE ASSOCIATIVE PROPERTY OF MULTIPLICATION IN SET OF	WHOLE NUM
0002220014	USES SET INTERPRETATION OF MULTIPLICATION FOR SOLVING	WRITTEN P

ING SETS (MANY TO MANY MATCHING).

D ADDITION.

LINES.

ENT SETS.

ES).

E PROPERTIES OF ZERO AND ONE.

ED FACT THAT REPRESENTS A GIVEN REPEATED ADDITION FACT.

THROUGH THE PRODUCT 18.

IT S R NO GREATER THAN 14, STUDENT SOLVES MULTIPLICATION PROBLEM, HORIZONTAL AND

5. E PRODUCT IS NOT GREATER THAN 25.

NUM MULTIPLICATION IN SET OF WHOLE NUMBERS. $(4 \times 3) \times 2 = 4 \times (3 \times 2)$.

N P MULTIPLICATION FOR SOLVING WRITTEN PROBLEMS.

7003220	MULTIPLICATION	
0003220001	MULTIPLY THROUGH SKIP COUNTING TO INTRODUCE AN ELEMENT	OF LOGIC IN FIN
0003220002	MULTIPLY THROUGH NUMBER LINES, TO INTRODUCE AN ELEMENT	OF LOGIC IN FIN
0003220003	USES REPEATED ADDITION TO SOLVE MULTIPLICATION PROBLEMS.	ONE DIGIT FACTO
0003220004	USE THE NUMBER LINE TO ILLUSTRATE MULTIPLICATION	PROBLEMS.
0003220005	THE STUDENT WILL NAME MULTIPLICATION FACTS THROUGH FIVE.	
0003220006	USE THE MULTIPLICATION FACTS WITH PRODUCTS THROUGH 45.	
0003220007	DISCOVER NUMBER PATTERNS FROM MULTIPLICATION TABLES.	
0003220008	TELL THE MULTIPLICATION FACTS OF 1 DIGIT FACTORS WHERE	AT LEAST ONE OF
0003220009	TELL THE MULTIPLICATION FACTS OF 1 DIGIT NUMBERS.	
0003220010	FINDS UNKNOWN FACTS FROM KNOWN FACTS.	
0003220011	USES MULTIPLICATION ALGORITHM TO FIND A ONE DIGIT	FACTOR TIMES A
0003220012	USES ZERO (IDENTITY) AND ONE PRINCIPLE FOR	MULTIPLICATION.
0003220013	USES THE COMMUTATIVE PRINCIPLE FOR MULTIPLICATION.	
0003220014	USES THE ASSOCIATIVE PRINCIPLE FOR MULTIPLICATION.	

FIN INTRODUCE AN ELEMENT OF LOGIC IN FINDING PRODUCTS.

FIN INTRODUCE AN ELEMENT OF LOGIC IN FINDING PRODUCTS.

CTO MULTIPLICATION PROBLEMS. ONE DIGIT FACTORS.

MULTIPLICATION PROBLEMS.

ON FACTS THROUGH FIVE.

PRODUCTS THROUGH 45.

PLICATION TABLES.

OF DIGIT FACTORS WHERE AT LEAST ONE OF THE FACTORS IS LESS THAN 6.

DIGIT NUMBERS.

TS.

A FIND A ONE DIGIT FACTOR TIMES A TWO DIGIT FACTOR.

ON. PLE FOR MULTIPLICATION.

MULTIPLICATION.

MULTIPLICATION.

0003220015	WRITES MULTIPLICATION EQUATIONS FOR GIVEN SETS, NUMBER	LINES, PA
0003220016	MULTIPLY A 2 DIGIT OR 3 DIGIT NUMERAL BY A 1 DIGIT	NUMERAL
0003220017	SOLVE WORD PROBLEMS USING MULTIPLICATION WHERE THE	PRODUCT
0003220018	MULTIPLY A 2 OR 3 DIGIT NUMERAL BY A 1 DIGIT NUMERAL	WHERE RE
0003220019	MULTIPLIES A ONE DIGIT FACTOR TIMES THREE AND FOUR DIGIT FACTORS.	
0003220020	MULTIPLY MENTALLY BY 10 AND 100.	
0003220021	FINDS PRODUCTS USING 10 AND 100 AS FACTORS.	
0003220022	FINDS PRODUCT~ USING MULTIPLES OF 10 AND 100 AS FACTORS.	
0003220023	USES ESTIMATES OF MULTIPLES OF 10 AND 100 TO FIND	PRODUCTS.
0003220024	USES DISTRIBUTIVE PRINCIPLE.	
0004220	MULTIPLICATION	
0004220001	SOLVE MULTIPLICATION PROBLEMS BY USING REPEATED	ADDITION.
0004220002	RECOGNIZE GROUPS OF EQUIVALENT SETS IN OPFRATIONS	INVOLVING
0004220003	RECALL THE MULTIPLICATION FACTS THROUGH 10 X 10.	

ATIONS FOR GIVEN SETS, NUMBER LINES, PAIRS. ONE DIGIT FACTORS.

AL WITH NUMERAL BY A 1 DIGIT NUMERAL WHERE REGROUPING IS NOT REQUIRED.

CT MULTIPLICATION WHERE THE PRODUCT IS NOT GREATER THAN 25.

REGULAR BY A 1 DIGIT NUMERAL WHERE REGROUPING IS REQUIRED.

RS. FOR TIMES THREE AND FOUR DIGIT FACTORS.

100.

100 AS FACTORS.

LES OF 10 AND 100 AS FACTORS.

CTS. OF 10 AND 100 TO FIND PRODUCTS.

ION. MS BY USING REPEATED ADDITION.

VING ENT SETS IN OPERATIONS INVOLVING MULTIPLICATION.

FACTS THROUGH 10 X 10.

0004220004	GIVEN MULTIPLICATION EQUATIONS, STUDENTS CAN SELECT	NUMBERS THAT ARE	ST
0004220005	MULTIPLY A 2 DIGIT NUMBER BY A 2 DIGIT MULTIPLE OF 10.		D
0004220006	MULTIPLY A NUMBER BY MULTIPLES OF 100.		F
0004220007	MULTIPLY 1, 2, AND 3 DIGIT NUMBERS BY 1000.		RS
0004220008	USE THE MULTIPLICATION ALGORITHM WITH TWO-PLACE	MULTIPLIERS.	W
0004220009	MULTIPLY ANY 3 DIGIT NUMBER AND A 2 DIGIT NUMBER.		A
0004220010	FIND SOLUTIONS FOR SENTENCES LIKE $723 \times * = * \times 723$ TO	GENERALIZE THE I	E
	MULTIPLICATION.		
0004220011	GENERALIZE THE DISTRIBUTIVE PROPERTY OF MULTIPLICATION	OVER ADDITION.	ER
0005220	MULTIPLICATION		
0005220001	IDENTIFY THE FACTORS AND THE PRODUCT IN A MULTIPLICATION PROBLEM.		DU
0005220002	FIND THE MISSING FACTOR IN A MULTIPLICATION PROBLEM.		TI
0005220003	DEMONSTRATE A WORKING KNOWLEDGE OF THE BASIC FACTS,	OPERATIONS AND F	OF
0005220004	FIND THE PRODUCT OF A 1-DIGIT NUMBER AND A 2,3,4, DIGIT	NUMBER.	ME
0005220005	FIND THE PRODUCT OF A 1-DIGIT NUMBER AND A MULTIPLE OF	10 OR 100.	ME

ARE STUDENTS CAN SELECT NUMBERS THAT ARE FACTORS.

DIGIT MULTIPLE OF 10.

F 100.

RS BY 1000.

WITH TWO-PLACE MULTIPLIERS.

A 2 DIGIT NUMBER.

IE I E $723 \times * = * \times 723$ TO GENERALIZE THE IDLA OF THE COMMUTATIVE PROPERTIES OF

10. ERTY OF MULTIPLICATION OVER ADDITION.

DUCT IN A MULTIPLICATION PROBLEM.

TIPLICATION PROBLEM.

ID F OF THE BASIC FACTS, OPERATIONS AND FUNCTIONS OF MULTIPLICATION.

MBER AND A 2,3,4, DIGIT NUMBER.

MBER AND A MULTIPLE OF 10 OR 100.

0005220006	FIND THE PRODUCT OF TWO 2-DIGIT NUMBERS WHEN BOTH	FACTORS ARE 2-DIGIT
0005220007	FIND THE PRODUCT OF TWO 2-DIGIT NUMBERS.	
0005220008	FIND THE PRODUCT OF A 2-DIGIT NUMBER AND A 3,4, DIGIT	NUMBER. IT
0005220009	GIVEN A ONE-STEP WORD PROBLEM REQUIRING THE OPERATION	OF MULTIPLICATION (ONE DIGIT MULTIPLIER).
0005220010	GIVEN A TWO STEP WORD PROBLEM REQUIRING MULTIPLICATION	AND ADDITION. THE ANSWER.
0005220011	GIVEN A WORD PROBLEM REQUIRING MULTIPLICATION, WRITE THE EQUATION	AND ANSWER.
0005220012	SOLVE MULTIPLICATION PROBLEMS USING THE DISTRIBUTIVE	PROPERTY OF MULTIPLICATION.
0006220	MULTIPLICATION	
0006220001	FIND THE PRODUCT OF 2 NUMBERS, EACH NUMBER HAVING 2 OR	MORE DIGITS.
0006220002	GIVEN A WORD PROBLEM INVOLVING MULTIPLICATION OF WHOLE	NUMBERS, WRITE THE EQUATION.

5. MULTIPLY 2-DIGIT NUMBERS WHEN BOTH FACTORS ARE MULTIPLES OF 10.

6. MULTIPLY 2-DIGIT NUMBERS.

7. MULTIPLY A 2-DIGIT NUMBER AND A 3, 4, DIGIT NUMBER.

8. FOR A MULTIPLICATION PROBLEM REQUIRING THE OPERATION OF MULTIPLICATION, WRITE THE EQUATION AND FIND THE ANSWER.

9. FOR A MULTIPLICATION PROBLEM REQUIRING MULTIPLICATION AND ADDITION OR SUBTRACTION, WRITE THE EQUATION AND FIND THE ANSWER.

10. FOR A MULTIPLICATION PROBLEM REQUIRING MULTIPLICATION, WRITE THE EQUATION AND FIND THE ANSWER.

11. FOR A MULTIPLICATION PROBLEM USING THE DISTRIBUTIVE PROPERTY OF MULTIPLICATION OVER ADDITION, WRITE THE EQUATION AND FIND THE ANSWER.

12. MULTIPLY 2-DIGIT NUMBERS, EACH NUMBER HAVING 2 OR MORE DIGITS.

13. FOR A MULTIPLICATION PROBLEM INVOLVING MULTIPLICATION OF WHOLE NUMBERS, WRITE AN EQUATION FOR THE PROBLEM AND SOLVE THE PROBLEM.

0001225	NUMBER SENTENCES	
0001225001	PLACES GREATER THAN SYMBOL OR LESS THAN SYMBOL BETWEEN STRUCTURED GROUPS TO 9.	TWO NUMBERS TO 10
0001225002	THE STUDENT WILL INSERT THE SYMBOLS FOR LESS THAN AND	GREATER THAN WHEN
0001225003	DEMONSTRATE WITH SETS OF OBJECTS THE RELATIONSHIP $6 - 4 = 2$.	BETWEEN SUCH SENTENCES
0001225004	FIND THE SOLUTION FOR SENTENCES LIKE $3 + 4 = X$ AND $5 - 2 = X$.	LI
0001225005	WRITE AN APPROPRIATE MATHEMATICAL SENTENCE LIKE $3 + 4 = X$ FOR A PHYSICAL PROBLEM SUGGESTS THE OPERATION OF ADDITION.	SE AD
0001225006	MAKE UP A PROBLEM SITUATION TO FIT A GIVEN MATHEMATICAL SENTENCE INVOLVING	A
0001225007	WRITE AN APPROPRIATE MATHEMATICAL SENTENCE FOR A STORY PROBLEM WHERE ADDITION	SE
0001225008	WRITE A NUMBER SENTENCE FOR A GIVEN PICTURED ADDITION OR SUBTRACTION PROBLEM	N
0001225009	MAKE UP PROBLEMS FOR GIVEN MATHEMATICAL SENTENCES USING SUBTRACTION.	TI
0001225010	FIND SOLUTIONS FOR SENTENCES LIKE $X + Y = 7$ IN WHICH	MANY CORRECT SOLUTIONS
0001225011	SELECTS WHICH OF TWO (OR THREE) NUMBERS IS GREATER (GREATEST) SMALLER	MB
0001225012	WRITE NUMBER SENTENCES USING 3 DIGIT NUMERALS AND THE SYMBOLS LESS THAN	IT
0002225	NUMBER SENTENCES	
0002225001	WRITE AN EQUATION FOR A PICTURED ADDITION PROBLEM WHERE THE SUM OF THE NUMBERS	DD

0 LESS THAN SYMBOL BETWEEN TWO NUMBERS TO INDICATE THE GREATER OR LESSER WITHOUT

WHEN LESS THAN AND GREATER THAN WHEN COMPARING CARDINAL NUMBERS.

SENTENCE THE RELATIONSHIP BETWEEN SUCH SENTENCES AS $4 + 2 = 6$, $6 - 2 = 4$, AND

LIKE $3 + 4 = X$ AND $5 - 2 = X$.

CALCULATE SENTENCE LIKE $3 + 4 = X$ FOR A PHYSICAL SITUATION WHERE THE ACTION OF THE ADDITION.

L/I A GIVEN MATHEMATICAL SENTENCE INVOLVING ADDITION,

AC SENTENCE FOR A STORY PROBLEM WHERE ACTION SUGGESTS SUBTRACTION.

N PICTURED ADDITION OR SUBTRACTION PROBLEM.

TICAL SENTENCES USING SUBTRACTION.

SOL $X + Y = 7$ IN WHICH MANY CORRECT SOLUTIONS ARE POSSIBLE.

ALL NUMBERS IS GREATER (GREATEST) SMALLER (SMALLEST) FOR NUMBERS TO 100.

THAT NUMERALS AND THE SYMBOLS LESS THAN, $=$, AND GREATER THAN.

E N ADDITION PROBLEM WHERE THE SUM OF THE NUMERALS IS NOT GREATER THAN 18.

0002225002 WRITE AN EQUATION FOR A PICTURED SUBTRACTION PROBLEM WHERE THE M XE

0002225003 GIVEN ADDITION PROBLEM WITH TWO ADDENDS AND THE SUM, WRITE AN EQ WO
SAME NUMERALS TO 10.

0002225004 FIND SOLUTIONS FOR SENTENCES LIKE $3 + 2 = 8 - X$, USING NUMBER LINE LI

0002225005 USE THE TERMS GREATER THAN AND LESS THAN, AND EQUALS IN SENTENCE AN

0002225006 PLACE THE CORRECT SYMBOL IN THE PLACEHOLDER IN SENTENCES LIKE $13 + 5$ HE

0002225007 USE SENTENCES LIKE $5 + X = 12$, $X + 6 = 8$, $12 - X = 8$, AND $X = 5 +$,
SOLUTIONS FOR THE SENTENCES.

0002225008 FIND SOLUTIONS FOR SENTENCES LIKE $3 + 2 = 8 - X$, $X + 5 = 8 + 7$, $8 +$ L
WITH THE AID OF SETS OF OBJECTS. TS

0002225009 PLACES GREATER THAN, LESS THAN BETWEEN TWO NUMBERS TO INDICATE TH HA

0002225010 SELECTS WHICH OF TWO (OR THREE) NUMBERS IS GREATER (GREATEST) EF

0002225011 WRITES GREATER THAN, LESS THAN TO SHOW INEQUALITIES OF FOUR-DIGIT HA

0002225012 USE THE CORRECT SYMBOL (LESS THAN, = GREATER THAN), THAT BELONGS BE T
HAS MORE THAN 3 DIGITS.

0003225 NUMBER SENTENCES

0003225001 USE MANY DIFFERENT KINDS OF PLACEHOLDERS LIKE X, Y, N, IN MATHEMA PL

0003225002 USE SENTENCES LIKE $3 \times 4 = X$, $* \times 7 = 14$, AND $4 \times * = 12$ TO REPR

THE MINUEND SUBTRACTION PROBLEM WHERE THE MINUEND IS NOT GREATER THAN 18.

IN EQUATION TWO ADDENDS AND THE SUM, WRITE AN EQUATION FOR A SUBTRACTION PROBLEM USING THE

LINE LIKE $3 + 2 = 8 = X$, USING NUMBER LINE.

ENCE AND LESS THAN, AND EQUALS IN SENTENCES.

* THE PLACEHOLDER IN SENTENCES LIKE $13 + 5 = 8$ AND $15 + 3 = 5$.

5 = $X + 6 = 8$, $12 - X = 8$, AND $X - 5 = 6$ TO REPRESENT PHYSICAL SITUATIONS AND FIND

8 + LIKE $3 + 2 = 8 = X$, $X + 5 = 8 + 7$, $8 + X$ LESS THAN 12, AND $4 + 9$ GREATER THAN $X + 5$,
 TS.

E THAN BETWEEN TWO NUMBERS TO INDICATE THE GREATER OR LESSER NUMBER TO 100.

ST) (E) NUMBERS IS GREATER (GREATEST), SMALLER, (SMALLEST), FOR NUMBERS TO 100.

GIT THAN TO SHOW INEQUALITIES OF FOUR-DIGIT NUMERALS.

BE THAN, = GREATER THAN), THAT BELONGS BETWEEN TWO GIVEN NUMERALS, WHEN NEITHER NUMERAL

EMA PLACEHOLDERS LIKE X , Y , N , IN MATHEMATICAL SENTENCES.

EPR, * $X \times 7 = 14$, AND $4 \times * = 12$ TO REPRESENT PHYSICAL SITUATIONS.

- 0003225003 PLACE THE CORRECT SYMBOL (LESS THAN, GREATER THAN, =) IN THE PLACEHOLDER
 $42 \times 87 = 28$, AND $65 = 39 \times 5 \times 7$.
- 0003225004 DETERMINE BETWEENNESS, GREATER THAN, OR LESS THAN FOR NUMBERS THROUGH
- 0003225005 USES LESS THAN, GREATER THAN, =, TO DISTINGUISH BETWEEN NUMERALS OF ONE TO
- 0003225006 GIVEN ADDITION AND SUBTRACTION STORY PROBLEMS, WRITE THEM AS NUMBER STORY
- 0004225 NUMBER SENTENCES
- 0004225001 USE SENTENCES LIKE $36 + 4 = x$ AND $x \times 3 = 12$ TO REPRESENT PHYSI
- 0004225002 FIND SOLUTIONS FOR SENTENCES LIKE $x \times y = 36$.
- 0004225003 FIND SOLUTIONS FOR MATHEMATICAL SENTENCES INVOLVING MORE THAN ONE OPERAT
 $+ * = 10$.
- 0004225004 MAKE UP PROBLEM SITUATIONS TO FIT MATHEMATICAL SENTENCES INVOLVING MORE
 A STORY TO FIT THE SENTENCE $(3 \times 4) + 2 = *$.
- 0004225005 RECOGNIZE THAT $3 \times * = 7$ HAS NO WHOLE NUMBER SOLUTION.
- 0004225006 USES GREATER THAN, LESS THAN, = TO DISTINGUISH BETWEEN NUMERALS THROUGH

DER AN, GREATER THAN, $=$ IN THE PLACEHOLDER IN SENTENCES SUCH AS $3 \times 5 \times 7 + 8, 25$.

UGH AN, OR LESS THAN FOR NUMBERS THROUGH 999.

ONE TO DISTINGUISH BETWEEN NUMERALS OF ONE TO FOUR DIGITS.

ER DRY PROBLEMS, WRITE THEM AS NUMBER SENTENCES. TO 3 DIGITS.

YSI $X \times 3 = 12$ TO REPRESENT PHYSICAL SITUATIONS AND FIND SOLUTIONS FOR THE

$$* \times Y = 36.$$

RAT SENTENCES INVOLVING MORE THAN ONE OPERATION SUCH AS $(2 \times 5) + 4 = *$ AND (3×2)

RE MATHEMATICAL SENTENCES INVOLVING MORE THAN ONE OPERATION FOR EXAMPLE, MAKE UP
 $(X \div 4) + 2 = *$.

HOLE NUMBER SOLUTION.

UGH TO DISTINGUISH BETWEEN NUMERALS THROUGH MILLIONS.

0001230	NUMBER SYSTEMS (EARLY)	
0001230001	EXPLAIN HOW TO WRITE ROMAN NUMERALS BY COMBINING SEVERAL SYMBOLS.	
0002230	NUMBER SYSTEMS (EARLY)	
0002230001	RECOGNIZES ROMAN NUMERALS AS ANOTHER SYSTEM OF	NUMERATION
0002230002	RELATES TO THE ROMAN CONCEPT OF NUMERATION: EX VI	MEANS 5 +
0002230003	USES ROMAN NUMERALS TO XXXIX.	
0003230	NUMBER SYSTEMS (EARLY)	
0003230001	READ ROMAN NUMERALS THROUGH X (10).	
0003230002	WRITE ROMAN NUMERALS TO X (10).	
0003230003	MATCH ARABIC NUMERALS 1, 5, 10 TO ROMAN NUMERALS I, V, X.	
0003230004	STUDENT WILL IDENTIFY THE ROMAN NUMERALS FROM 1-50 IN	ANY GIVEN
0003230005	STUDENT WILL LIST THE ROMAN NUMERALS FROM 1-50.	
0004230	NUMBER SYSTEMS (EARLY)	
0004230001	RECOGNIZE ROMAN NUMERALS 1 THROUGH XXXIX.	

S. NUMERALS BY COMBINING SEVERAL SYMBOLS.

TION S ANOTHER SYSTEM OF NUMERATION.

5 + OF NUMERATION. EX VI MEANS 5 + 1, IV MEANS 5 - 1.

X (10) =

0) =

10 TO ROMAN NUMERALS I, V, X.

VEN ROMAN NUMERALS FROM 1-50 IN ANY GIVEN ORDER.

NUMERALS FROM 1-50.

THROUGH XXXIX.

0004230002 USE ROMAN NUMERALS THROUGH XXV.

0004230003 STUDENT WILL WRITE ROMAN NUMERALS TO 100.

0005230 NUMBER SYSTEMS (EARLY)

0005230001 RECOGNIZES OTHER NUMBER SYSTEMS - GREEK, EGYPTIAN, EAST ARABIC.

0005230002 READ ROMAN NUMERALS.

0005230003 WRITE ROMAN NUMERALS.

0005230004 STUDENT WILL READ DATES IN ROMAN NUMERALS.

0005230005 GIVES ROMAN NUMERAL FOR A BASE 10 NUMERAL.

0006230 NUMBER SYSTEMS (EARLY)

0006230001 AFTER EXAMINING NUMBER SYSTEMS OTHER THAN OUR OWN, THE STUDENT WILL LIST ER
NUMBER SYSTEM.

TO 100.

GREEK, EGYPTIAN, EAST ARABIC.

NUMERALS.

NUMERAL.

LIS ER THAN OUR OWN, THE STUDENT WILL LIST A MINIMUM OF TWO ADVANTAGES OF OUR

0005235	NUMBERS (INTEGERS)	
0005235001	USE THE NUMBER LINE TO REPRESENT POSITIVE RATIONAL	INTEGERS.
0005235002	USE THE NUMBER LINE TO REPRESENT NEGATIVE INTEGERS,	
0005235003	RECOGNIZES NEGATIVE INTEGERS.	
0005235004	EXPRESS THE QUOTIENT OF INTEGERS AS A MIXED NUMBER	FOR EXAMPLE,
0006235	NUMBERS (INTEGERS)	
0006235001	RECOGNIZE THE USE OF THE NUMBER LINE IN THE EXPLANATION	OF INTEGER
0006235002	GIVEN AN INTEGER, RECOGNIZE WHETHER IT IS LESS THAN,	EQUAL TO,
0006235003	RECOGNIZE THAT THE INTEGERS (POSITIVE AND NEGATIVE WHOLE NUMBERS AND POS	
0006235004	DETERMINE GREATER THAN, LESS THAN, AND BETWEENNESS FOR	(POSITIVE,
0006235005	FIND THE ADDITIVE INVERSE (OPPOSITE) AND EACH INTEGER BY USING THE	POS
0006235006	RECOGNIZE INTEGERS AS NEGATIVE NUMBERS.	
0006235007	ADD INTEGERS.	
0006235008	USE THE COMMUTATIVE PROPERTY OF ADDITION FOR INTEGERS.	
0006235009	FIND THE DIFFERENCE BETWEEN TWO INTEGERS.	

S. ENT POSITIVE RATIONAL INTEGERS.

ENT NEGATIVE INTEGERS.

ERS AS A MIXED NUMBER FOR EXAMPLE, 24 DIVIDED BY 5 = $4 \frac{4}{5}$.

GER LINE IN THE EXPLANATION OF INTEGERS.

O, WHETHER IT IS LESS THAN, EQUAL TO, OR GREATER THAN ANOTHER GIVEN INTEGER.

AND POSITIVE AND NEGATIVE WHOLE NUMBERS AND ZERO) ARE AN EXTENSION OF THE WHOLE NUMBERS.

VE, THAN, AND BETWEENNESS FOR (POSITIVE, NEGATIVE, AND ZERO) INTEGERS.

HE (POSITE) AND EACH INTEGER BY USING THE NUMBER LINE.

E NUMBERS.

OF ADDITION FOR INTEGERS.

WO INTEGERS.

0006235010 SOLVE WORD PROBLEMS REQUIRING THE ADDITION OF TWO INTEGERS. AD
0006235011 GRAPH ORDERED PAIRS OF INTEGERS ON A COORDINATE SYSTEM. A
0006235012 RECOGNIZE THAT THERE IS NO SMALLEST OR LARGEST RATIONAL NUMBER BETWEEN T T

ADDITION OF TWO INTEGERS.

A COORDINATE SYSTEM.

N T T OR LARGEST RATIONAL NUMBER BETWEEN TWO POSITIVE INTEGERS.

0003240	NUMBERS (PRIME - COMPOSITE)	
0003240001	IDENTIFIES PRIME NUMBERS LESS THAN 32.	
0004240	NUMBERS (PRIME - COMPOSITE)	
0004240001	DETERMINES WHETHER A NUMBER IS PRIME OR COMPOSITE.	
0004240002	FINDS COMMON FACTORS AND GREATEST COMMON FACTOR OF	NUMERALS.
0005240	NUMBERS (PRIME - COMPOSITE)	
0005240001	IDENTIFY COMPOSITE NUMBERS.	
0005240002	GIVES COMPLETE FACTORIZATION OF A COMPOSITE NUMBER.	
0005240003	USES INTERSECTION TO FIND COMMON MULTIPLES OF NUMBERS.	
0005240004	STUDENT NAMES COMMON FACTORS OF NUMBERS.	
0005240005	DETERMINES LEAST COMMON MULTIPLE OF NUMBERS.	
0005240006	IDENTIFY PRIME NUMBERS SUCH AS 2, 3, 5, 7, 11, 13, 17.	
0005240007	STUDENT DESIGNATES THE PRIME FACTORS OF NUMBERS.	
0005240008	FIND THE PRIME FACTORS OF NUMBERS THROUGH 100.	
0005240009	GIVEN ANY TWO WHOLE NUMBERS, FIND THEIR GREATEST COMMON	FACTOR.

0005240010

GIVEN ANY WHOLE NUMBER, RECOGNIZE WHETHER IT IS PRIME OR COMPOSITE.

0004245	NUMBERS (RATIONAL AND IRRATIONAL)	
0004245001	STUDENT IDENTIFIES AND ILLUSTRATES THE PROPERTIES OF	RATIONAL NUMBERS.
0004245002	SOLVE MULTIPLICATION PROBLEMS INVOLVING ODD AND EVEN	NUMBERS.
0004245003	SOLVE DIVISION PROBLEMS INVOLVING ODD AND EVEN NUMBERS.	
0005245	NUMBERS (RATIONAL AND IRRATIONAL)	
0005245001	RECOGNIZES THAT EACH SET OF EQUIVALENT FRACTIONS IS	ASSOCIATED
0005245002	WRITE MANY NAMES FOR THE SAME RATIONAL NUMBER.	
0005245003	FIND MANY WAYS TO EXPRESS A RATIONAL NUMBER.	
0005245004	DETERMINES INEQUALITIES FOR RATIONAL NUMBERS.	
0005245005	ADD SIMPLE RATIONAL NUMBERS BY USE OF PHYSICAL OBJECTS, DIAGRAMS, E	BY
0005245006	ADD RATIONAL NUMBERS.	
0005245007	DEMONSTRATE KNOWLEDGE THAT A WHOLE NUMBER IS ALSO A	MIXED NUMBER
0005245008	USE DIFFERENT TECHNIQUES FOR FINDING THE SUM OF TWO	RATIONAL NUMBERS
0005245009	USE THE COMMUTATIVE PROPERTIES FOR ADDITION IN THE SET	OF POSITIVE NUMBERS
0005245010	USE THE ASSOCIATIVE PROPERTY FOR ADDITION IN THE SET OF	POSITIVE RATIONAL NUMBERS

RATIONAL}

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NUMERICAL STRATES THE PROPERTIES OF RATIONAL NUMBERS UNDER ADDITION AND ITS INVERSE.

IS INVOLVING ODD AND EVEN NUMBERS.

OLVING ODD AND EVEN NUMBERS.

RATIONAL}

ED EQUIVALENT FRACTIONS IS ASSOCIATED WITH ONE RATIONAL NUMBER.

HE RATIONAL NUMBER.

RATIONAL NUMBER.

R RATIONAL NUMBERS.

, E BY USE OF PHYSICAL OBJECTS, DIAGRAMS, ETC.

MBER A WHOLE NUMBER IS ALSO A MIXED NUMBER.

NUMER FINDING THE SUM OF TWO RATIONAL NUMBERS.

IVE LIES FOR ADDITION IN THE SET OF POSITIVE RATIONAL NUMBERS.

RA Y FOR ADDITION IN THE SET OF POSITIVE RATIONAL NUMBERS.

0005245011	DETERMINE GREATER THAN, LESS THAN, AND BETWEENNESS FOR	RATIONAL NUMBER
0005245012	IDENTIFY THE LARGER RATIONAL NUMBER OF TWO BEING	COMPARED.
0005245013	RECOGNIZE THE SET OF POSITIVE RATIONAL NUMBERS	(FRACTIONS) AS
0005245015	RECOGNIZE THAT THERE IS NO SMALLEST POSITIVE RATIONAL	NUMBER.
0005245016	SUBTRACT SIMPLE RATIONAL NUMBERS BY USE OF PHYSICAL	OBJECTS, DIAGRA
0005245017	SUBTRACT RATIONAL NUMBERS.	
0005245018	RECOGNIZE THAT SUBRRACTION IS NOT ALWAYS POSSIBLE IN THE SET OF POSITIVE	
0005245019	MULTIPLY SIMPLE RATIONAL NUMBERS BY USE OF PHYSICAL	OBJECTS, DIAGRA
0005245020	IDENTIFY PROPERTIES OF RATIONAL NUMBERS UNDER	MULTIPLICATION.
0005245021	STUDENT WILL ILLUSTRATE PROPERTIES OF RATIONAL NUMBERS	UNDER MULTIPLIC
0005245022	ILLUSTRATE PROPERTIES OF RATIONAL NUMBERS UNDER	DIVISION.
0006245	NUMBERS (RATIONAL AND IRRATIONAL)	
0006245001	IDENTIFY RATIONAL NUMBERS FROM SETS OF EQUIVALENT	FRACTIONS.
0006245002	COMPLETE EQUATIONS DEALING WITH EQUALITY AND INEQUALITY	OF RATIONAL NUM

NUMBER, AND BETWEENNESS FOR RATIONAL NUMBERS.

NUMBER OF TWO BEING COMPARED.

AS RATIONAL NUMBERS (FRACTIONS) AS AN EXTENSION OF THE SET OF WHOLE NUMBERS.

THE SMALLEST POSITIVE RATIONAL NUMBER.

GRAPH BY USE OF PHYSICAL OBJECTS, DIAGRAMS, ETC.

IT IS ALWAYS POSSIBLE IN THE SET OF POSITIVE RATIONAL NUMBERS.

GRAPH BY USE OF PHYSICAL OBJECTS, DIAGRAMS, ETC.

NUMBERS UNDER MULTIPLICATION.

PROPERTIES OF RATIONAL NUMBERS UNDER MULTIPLICATION.

NUMBERS UNDER DIVISION.

SETS OF EQUIVALENT FRACTIONS.

NUMBERS, EQUALITY AND INEQUALITY OF RATIONAL NUMBERS.

0006245003	DEFINE VOCABULARY OF TERMS USED IN CONNECTION WITH THE	STUDY OF F	ED
0006245004	USE NEGATIVE NUMBERS IN MANY DIFFERENT SITUATIONS.		DI
0006245005	RECOGNIZE THAT $1/1$ OR 1 IS AN IDENTITY ELEMENT FOR	MULTIPLICA	I
0006245006	MULTIPLY RATIONAL NUMBERS.		
0006245007	USE THE COMMUTATIVE PROPERTIES OF MULTIPLICATION FOR	RATIONAL N	S
0006245008	USE THE ASSOCIATIVE PROPERTY OF MULTIPLICATION FOR	RATIONAL N	OF
0006245009	USE THE DISTRIBUTIVE PROPERTY OF MULTIPLICATION WITH	RESPECT TO	0
0006245010	RECOGNIZE THE MULTIPLICATIVE INVERSE (RECIPROCAL) FOR	EVERY POSI	IN
	THE DIVISION OF RATIONAL NUMBERS.		ER
0006245011	RELATE CONCEPTS OF DECIMALS TO RATIONAL NUMBERS AND LONG DIVISION.		0
0006245012	RECOGNIZE THAT THE OPERATION OF DIVISION IS THE INVERSE	OF MULTIPL	OF
	NUMBERS.		
0006245013	DIVIDE RATIONAL NUMBERS.		
0006245014	RECOGNIZE THAT THE RATIONAL NUMBERS (POSITIVE AND	NEGATIVE W	UM
	AND ZERO) ARE AN EXTENSION OF THE INTEGERS.		T
0006245015	RECOGNIZE THAT THE RATIONAL NUMBER SYSTEM IS DENSE	THAT IS, B	UM
	THERE IS A RATIONAL NUMBER.		

OF FRACTIONS IN CONNECTION WITH THE STUDY OF FRACTIONS AND RATIONAL NUMBERS.

DIFFERENT SITUATIONS.

IDENTITY ELEMENT FOR MULTIPLICATION IN THE SET OF RATIONAL NUMBERS.

LAWS OF MULTIPLICATION FOR RATIONAL NUMBERS.

LAWS OF MULTIPLICATION FOR RATIONAL NUMBERS.

TO MULTIPLICATION WITH RESPECT TO ADDITION OF RATIONAL NUMBERS.

POSITIVE INVERSE (RECIPROCAL) FOR EVERY POSITIVE RATIONAL NUMBER EXCEPT ZERO AND USE IT IN DIVISIONS.

LONG DIVISION OF RATIONAL NUMBERS AND LONG DIVISION.

PROPERTY OF DIVISION IS THE INVERSE OF MULTIPLICATION IN THE SET OF POSITIVE RATIONAL NUMBERS.

WHOLE NUMBERS (POSITIVE AND NEGATIVE WHOLE NUMBERS, POSITIVE AND NEGATIVE FRACTIONS, THE INTEGERS.

NUMBER SYSTEM IS DENSE THAT IS, BETWEEN EACH TWO DIFFERENT RATIONAL NUMBERS,

0002250 NUMBERS (WHOLE)

0002250001 RECOGNIZES THE SET OF WHOLE NUMBERS.

0002250002 IDENTIFIES THE SET OF EVEN NUMBERS.

0002250003 IDENTIFIES THE SET OF ODD NUMBERS.

0002250004 RECOGNIZE THAT THERE IS NO LARGEST WHOLE NUMBER.

0004250 NUMBERS (WHOLE)

0004250001 DEMONSTRATE THAT THE WAY IN WHICH YOU GROUP WHOLE NUMBERS IN AN AD YC
ANSWER.

0004250002 DEMONSTRATE THAT THE ORDER IN WHICH YOU ADD TWO WHOLE NUMBERS DOES NOT CH

0004250003 DEMONSTRATE THAT SUBTRACTION UNDOES ADDITION FOR WHOLE NUMBERS. ES

0004250004 DEMONSTRATE THAT THE ORDER IN WHICH YOU MULTIPLY TWO WHOLE NUMBERS DO CH

0004250005 DEMONSTRATE THE WAY YOU GROUP NUMBERS IN A MULTIPLICATION P BER

0004250006 DEMONSTRATE THAT DIVISION UNDOES MULTIPLICATION FOR WHOLE NUMBERS. MU

0005250 NUMBERS (WHOLE)

0005250001 RECOGNIZE THAT SUBTRACTION IS NOT ALWAYS POSSIBLE IN THE SET OF WHOLE NUM AL

rs.

s.

T WHOLE NUMBER.

W AD YOU GROUP WHOLE NUMBERS IN AN ADDITION PROBLEM DOES NOT CHANGE THE

NOT CH YOU ADD TWO WHOLE NUMBERS DOES NOT CHANGE THE ANSWER.

ES ADDITION FOR WHOLE NUMBERS.

S DO CH YOU MULTIPLY TWO WHOLE NUMBERS DOES NOT CHANGE THE ANSWER.

ON P BERS IN A MULTIPLICATION PROBLEM DOES NOT CHANGE THE ANSWER.

S. MULTIPLICATION FOR WHOLE NUMBERS.

NUM ALWAYS POSSIBLE IN THE SET OF WHOLE NUMBERS.

0006250	NUMBERS (WHOLE)	
0006250001	USE THE DISTRIBUTIVE LAW FOR MULTIPLICATION OVER	ADDITION AND MU
0006250002	DEMONSTRATE WHETHER OR NOT THE OPERATIONS OF ADDITION	AND SUBTRA F
0006250003	DEMONSTRATE WHETHER OR NOT THE OPERATIONS OF ASSOCIATIVE.	DIVISION A F
0006250004	DEMONSTRATE WHETHER OR NOT THE OPERATIONS OF ASSOCIATIVE.	DIVISION A F
0006250005	USE THE DISTRIBUTIVE LAW FOR DIVISION OVER ADDITION AND	SUBTRACTION DI
0006250006	DEMONSTRATE WHETHER OR NOT THE OPERATIONS OF	DIVISION A E

N A MULTIPLICATION OVER ADDITION AND SUBTRACTION.
 TRA OF OPERATIONS OF ADDITION AND SUBTRACTION ARE COMMUTATIVE AND ASSOCIATIVE,
 N A OF OPERATIONS OF DIVISION AND MULTIPLICATION ARE COMMUTATIVE AND
 N A OF OPERATIONS OF DIVISION AND MULTIPLICATION ARE COMMUTATIVE AND
 TION DIVISION OVER ADDITION AND SUBTRACTION USING ONE PLACE DIVISORS.
 N A OF OPERATION: DIVISION AND MULTIPLICATION HAVE AN IDENTITY ELEMENT.

0000255 NUMERALS

0000255001 KNOW THAT A NUMBER IS AN IDEA.

0000255002 GIVEN SETS OF ELEMENTS (PICTURE OR CONCRETE) SOME OF WHICH ARE EMPTY
AND IDENTIFY NUMERAL 0 AS REPRESENTING THE NUMBER OF THE SET.

0000255003 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE CARD
CONTAIN ONE MEMBER EACH AND IDENTIFY NUMERAL 1 AS REPRESENTING THE SET.

0000255004 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN TWO MEMBERS EACH AND IDENTIFY THE NUMERAL 2 AS REPRESENTING

0000255005 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN THREE MEMBERS EACH AND IDENTIFY NUMERAL 3 AS REPRESENTING

0000255006 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN FOUR MEMBERS EACH AND IDENTIFY NUMERAL 4 AS REPRESENTING

0000255007 GIVEN SETS OF ELEMENTS (PICTURE OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAINS FIVE MEMBERS EACH AND IDENTIFY NUMERAL 5 AS REPRESENTING

0000255008 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN SIX MEMBERS EACH AND IDENTIFY NUMERAL 6 AS REPRESENTING

0000255009 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN SEVEN MEMBERS EACH AND IDENTIFY NUMERAL 7 AS REPRESENTING

0000255010 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN EIGHT MEMBERS EACH AND IDENTIFY NUMERAL 8 AS REPRESENTING

0000255011 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN NINE MEMBERS EACH AND IDENTIFY NUMERAL 9 AS REPRESENTING

0000255012 GIVEN SETS OF ELEMENTS (PICTURES OR CONCRETE) SOME OF WHICH HAVE THE
WHICH CONTAIN TEN MEMBERS EACH AND IDENTIFY NUMERAL 10 AS REPRESENTING

0000255013 IDENTIFY THE NUMERALS 0 THROUGH 9.

0000255014 GIVEN A GROUP OF NO MORE THAN 10 OBJECTS, COUNT THE OBJECTS.

PTY (OR CONCRETE) SOME OF WHICH ARE EMPTY SETS, LOCATE THE SETS WHICH ARE EMPTY
NTING THE NUMBER OF THE SET.

ARD (OR CONCRETE) SOME OF WHICH HAVE CARDINAL NUMBER OF ONE, LOCATE THE SETS WHICH
THIFY NUMERAL 1 AS REPRESENTING THE MEMBER.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF TWO. LOCATE THE SETS
NTI AND IDENTIFY THE NUMERAL 2 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF THREE, LOCATE THE SETS
NTI AND IDENTIFY NUMERAL 3 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF FOUR, LOCATE THE SETS
NG AND IDENTIFY NUMERAL 4 AS REPRESENTING THE NUMBER OF THE SETS.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF FIVE, LOCATE THE SET
NG AND IDENTIFY NUMERAL 5 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF SIX, LOCATE THE SETS
NG AND IDENTIFY NUMERAL 6 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF SEVEN, LOCATE THE SETS
NG AND IDENTIFY NUMERAL 7 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF EIGHT, LOCATE THE SETS
NG AND IDENTIFY NUMERAL 8 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF NINE LOCATE THE SETS
NG AND IDENTIFY NUMERAL 9 AS REPRESENTING THE NUMBER OF THE SET.

HE (OR CONCRETE) SOME OF WHICH HAVE THE CARDINAL NUMBER OF TEN, LOCATE THE SETS
NG AND IDENTIFY NUMERAL 10 AS REPRESENTING THE NUMBER OF THE SET.

SUBJECTS, COUNT THE

OBJECTS.

0000255015	GIVEN A POINT ON A NUMBER LINE, WRITE THE CORRESPONDING	NUMBER FROM	F,
0000255016	GIVEN A SET OF NUMERAL FLASH CARDS, 0 THROUGH 10,	ARRANGE TH	CA
0000255017	PROVIDED WITH PROPER MATERIALS, SUCH AS, PENCIL, PAPER,	OR CHALK,	S,
0000255018	MATCH THE WORD FORMS OF THE NUMBERS 0-10 WITH THE	CORRECT NU	UM
0000255019	COUNT ORALLY BY MATCHING NUMERALS WITH SETS HAVING A	GIVEN NUMB	RA
0000255020	SELECT THE SET OF OBJECTS ASSOCIATED WITH A GIVEN	NUMBER.	OC
0000255021	WRITE THE NUMERAL FOR A GIVEN SET OF 0-10 OBJECTS.		S
0000255022	COUNT MEMBERS OF SETS IN THEIR PROPER ORDER THROUGH 10.		R
0000255023	GIVEN TEN NON-EQUIVALENT SETS, ARRANGE THE SETS IN	ORDER.	,
0000255024	GIVEN GROUPS OF OBJECTS (NO MORE THAN 10) ORGANIZE FROM	LARGEST TO	OR
0000255025	GIVEN TWO NUMBERS (VERBAL OR SETS OF OBJECTS OR	PICTURES);	SE
	SAYING SEVEN IS GREATER THAN THREE OR THREE IS LESS	THAN SEVEN	T
0000255026	GIVEN A SEQUENCE OF OBJECTS, PEOPLE, ETC, IDENTIFY THE	ORDINAL NUM	FE
0000255027	IN RANDOM ORDER, SHOW WHICH OBJECT IS FIRST TO FIFTH	IN A GIVEN	RJ
0000255028	COUNT OBJECTS FROM 0-100 ORALLY.		LY

FROM IF, WRITE THE CORRESPONDING NUMBER FROM 0-10 FOR THE POINT.

THE CARDS, 0 THROUGH 10, ARRANGE THEM IN THE CORRECT SEQUENCE.

K, S, SUCH AS PENCIL, PAPER, OR CHALK, CORRECTLY WRITE THE NUMERALS 0 THROUGH 10.

NUMBERS 0-10 WITH THE CORRECT NUMERALS.

NUMBERS WITH SETS HAVING GIVEN NUMBER OF OBJECTS,

OCIATED WITH A GIVEN NUMBER.

SET OF 0-10 OBJECTS.

R PROPER ORDER THROUGH 10.

, ARRANGE THE SETS IN ORDER.

TO MORE THAN 10) ORGANIZE FROM LARGEST TO SMALLEST AND SMALLEST TO LARGEST.

SETS OF OBJECTS OR PICTURES) SUCH AS SEVEN AND THREE, ORDER THEM BY
 THREE OR THREE IS LESS THAN SEVEN.

NUM PEOPLE, ETC, IDENTIFY THE ORDINAL NUMBER IN THE SEQUENCE.

EN OBJECT IS FIRST TO FIFTH IN A GIVEN SET OF OBJECTS ARRANGED IN A ROW.

LY.

0000255029 COUNT ORALLY BY STEPS TO 100.

0001255 NUMERALS

0001255001 COUNTS OBJECTS ORALLY FROM ONE TO TEN BY POINTING TO OBJECT AND SAYING

0001255002 COUNTS ORALLY FROM ONE TO TEN.

0001255003 PLACES AN X ON THE OBJECT WITH THE SPECIFIED ORDINAL POSITION TO TEN

0001255004 IDENTIFIES THE CARDINAL NUMBER AND NUMERAL OF STRUCTURED GROUPS TO 4.

0001255005 IDENTIFIES THE CARDINAL NUMBER AND NUMERAL OF STRUCTURED GROUPS 5-9.

0001255006 PRESENTED WITH NUMBERS 1-9 IN ORDER, READS THEM FROM LEFT TO RIGHT.

0001255007 WRITES NUMERALS 1 TO 9 FROM LEFT TO RIGHT ON AN ORDERED SET OF PICTURES.

0001255008 TELLS WHAT NUMBER COMES BEFORE OR AFTER A GIVEN NUMBER, OR IN-BETWEEN TWO

0001255009 SELECTS WHICH OF TWO (OR THREE) NUMERALS IS GREATER OR LESS THAN ANOTHER

0001255010 IDENTIFIES THE ORDER OF SETS OF NUMBERS THROUGH 9 RELATING TO CONC

0001255011 STUDENT WILL NAME THE CARDINAL NUMBER OF ANY GIVEN SET THROUGH 12.

0001255012 READ NUMBER WORDS THROUGH TEN.

YIN TEN BY POINTING TO OBJECT AND SAYING NUMBER.

TEN E SPECIFIED ORDINAL POSITION TO TENTH.

D NUMERAL OF STRUCTURED GROUPS TO 4.

D NUMERAL OF STRUCTURED GROUPS 5-9.

• ER, READS THEM FROM LEFT TO RIGHT.

ES. TO RIGHT ON AN ORDERED SET OF PICTURES.

TW AFTER A GIVEN NUMBER, OR IN-BETWEEN TWO NUMBERS. (1-9)

THE NUMERALS IS GREATER OR LESS THAN ANOTHER. (1-9)

ONC NUMBERS THROUGH 9 RELATING TO CONCEPT OF ONE MORE.

MBER OF ANY GIVEN SET THROUGH 12.

0001255013	GIVEN NUMBER WORDS FOR 0-10, MATCHES WORDS WITH NUMBERS.	
0001255014	GIVEN NUMBER WORDS FROM 0-10, MATCHES WORDS WITH	STRUCTURED
0001255015	IDENTIFIES EVEN NUMBERS TO 50. (COUNTING 2,4,6,8,10, ..., 50).	
0001255016	WRITES EVEN NUMBERS TO 50. (COUNTING 2,4,6,8,10, ..., 50).	
0001255017	IDENTIFIES NUMBERS TO 50 BY SKIP-COUNTING (2'S, 3'S, 4'S, 5'S).	
0001255018	WRITES ODD NUMBERS TO 50. (COUNTING 1,3,5,7, ..., 49).	
0001255019	STUDENT COUNTS BY TWO'S THROUGH 20, BY 5'S TO 50, BY 10'S TO 100	
0001255020	COUNTS ORALLY BY ONES TO 100 IN SHORT SEQUENCES.	
0001255021	WRITES NUMERAL FROM 1-100 IN SEQUENTIAL ORDER TO TOTAL	FOR SMALL
0001255022	WRITES NUMERAL 1-100 TO REPRESENT TOTAL OF AN ORDERED	SET OF PICTURES
0001255023	IDENTIFIES WHAT NUMBER COMES AFTER A GIVEN NUMBER, OR BEFORE ANY	STRUCTURED GROUPS.
0001255024	PRESENTED WITH AN ORDERED ARRANGEMENT OF NUMERALS,	0-100, READ
0001255025	IDENTIFIES NUMBER AFTER GIVEN NUMBER OR BEFORE GIVEN	NUMBER WITH
0001255026	SELECTS A STRUCTURED GROUP TO MATCH A GIVEN NUMBER OR	NUMBERS TO

MATCHES WORDS WITH NUMBERS.

RED. MATCHES WORDS WITH STRUCTURED GROUPS.

0. 0. (COUNTING 2,4,6,8,10, ..., 50).

(COUNTING 2,4,6,8,10, ..., 50).

3). SKIP-COUNTING (2'S, 3'S, 4'S, 5'S).

COUNTING 1,3,5,7, ..., 49).

10. UGH 20, BY 5'S TO 50, BY 10'S TO 100.

IN SHORT SEQUENCES.

LL. SEQUENTIAL ORDER TO TOTAL FOR SMALL BLOCKS OF (NUMBERED) OBJECTS.

PIC. ESENT TOTAL OF AN ORDERED SET OF PICTURES FOR SMALL BLOCKS OF (NUMBERED) OBJECTS.

ANY. AFTER A GIVEN NUMBER, OR BEFORE ANY GIVEN NUMBER FOR NUMBERS TO 100, WITHIN

READ. RANGEMENT OF NUMERALS, 0-100, READS THEM ON REQUEST FROM ANY STARTING POINT.

WITH. N NUMBER OR BEFORE GIVEN NUMBER WITHOUT STRUCTURED GROUPS TO 100.

TO. D MATCH A GIVEN NUMBER OR NUMBERS TO 99.

0001255027 STUDENT WRITES NUMBERS TO 150.

0001255028 STUDENT WILL READ NUMERALS TO 150.

0001255029 COUNTS ORALLY TO ONE THOUSAND BY 100'S, BY 10'S, 5'S, AND 2'S. START 10

0002255 NUMERALS

0002255001 READS NUMBER WORDS 0-10.

0002255002 SPELLS NUMBER WORDS 0-10.

0002255003 STUDENT READS THE NUMBER WORDS TO TWENTY.

0002255004 WRITE NUMBER WORDS TO TWENTY.

0002255005 STUDENT WILL NAME CARDINAL NUMBER OF ANY GIVEN SET TO 20.

0002255006 USE ORDINAL NUMBERS THROUGH TENTH.

0002255007 WRITE MANY SYMBOLS FOR THE SAME NUMBER FOR EXAMPLE, $6 + 3$, $5 + 5$, 17 - ME

0002255008 COUNTS BY MULTIPLES OF 3, 4, 5, AND 10. ND

0002255009 READS SHORT SEQUENCES OF NUMBERS FROM ANY STARTING POINT TO 100. RC

0002255010 WRITES SHORT SEQUENCES OF NUMBERS FROM ANY STARTING POINT TO 100. FR

ART 100'S, BY 10'S, 5'S, AND 2'S. STARTING WITH 100, 10, 5, AND 2 RESPECTIVELY.

TWENTY.

OF ANY GIVEN SET TO 20.

7 NUMBER FOR EXAMPLE, $6 + 3$, $5 + 5$, $17 - 8$, AND 9 FOR NINE.

ND 10.

FROM ANY STARTING POINT TO 100.

FROM ANY STARTING POINT TO 100.

0002255011 READS NUMERALS 0-100.

0002255012 WRITES NUMBERS 0-100.

0002255013 COMPLETE EXERCISES FOR COUNTING BY TENS AND FIVE FROM ANY START

0002255014 SUPPLIES THE NUMBER THAT COMES BEFORE, AFTER, OR BETWEEN ANY GIVEN

0002255015 ARRANGE GIVEN NUMBERS IN ORDER FROM THE LEAST TO THE GREATEST

0002255016 COUNT BY 5'S, 10'S, AND 100'S.

0002255017 LIST THE ODD NUMBERS FROM 1-99.

0002255018 LIST THE EVEN NUMBERS FROM 2-100.

0002255019 STUDENT WILL COUNT BY 2'S, 5'S, AND 10'S TO 200.

0002255020 COUNTS AND WRITES ORDERED SEQUENTIAL NUMERALS LESS THAN 1000.

0002255021 SKIP-COUNTS BY TENS, HUNDREDS, THOUSANDS FROM ANY GIVEN NUMERAL UP

0002255022 READ ANY NUMERAL THROUGH 999.

0002255023 STUDENT WRITES NUMBERS TO 999.

STARTING BY TENS AND FIVE FROM ANY STARTING POINT TO 100.

EVENES BEFORE, AFTER, OR BETWEEN ANY GIVEN NUMBERS TO 100.

EST ER FROM THE LEAST TO THE GREATEST TO 100.

S.

99.

-100.

S, AND 10'S TO 200.

QUENTIAL NUMERALS LESS THAN 1000.

L UP S, THOUSANDS FROM ANY GIVEN NUMERAL UP TO 9,999.

9.

0003255 NUMERALS

0003255001 USE ORDINAL NUMBERS BEYOND TENTH.

0003255002 WRITE MANY SYMBOLS FOR THE SAME NUMBER, SUCH AS $7 + 5$, 4×3 , $10 + 2$, $100 - 3$, $10 \div 2$, $1000 \div 10$.

0003255003 RECOGNIZE THAT NUMERALS SUCH AS 57 CAN BE EXPRESSED AS $40 + 17$.

0003255004 IDENTIFIES EVEN NUMBERS.

0003255005 IDENTIFIES ODD NUMBERS.

0003255006 WRITES NUMERALS TO 9,999 IN NUMERALS.

0003255007 WRITES NUMERALS TO 9,999 IN WORDS.

0003255008 COUNTS, TO 999,999.

0003255009 READS TO 999,999.

0003255010 WRITES TO 999,999.

0003255011 STUDENT READS NUMBER WORDS TO MILLIONS.

0003255012 STUDENT WRITES NUMBER WORDS TO MILLIONS.

0004255 NUMERALS

0004255001 COUNTS THROUGH MILLIONS.

2, NUMBER, SUCH AS $7 + 5$, 4×3 , $10 + 2$, AND 12 FOR TWELVE.

7 CAN BE EXPRESSED AS $40 + 17$.

ALS.

IONS.

LIONS.

0004255002 READS THROUGH MILLIONS.
0004255003 WRITES THROUGH MILLIONS.
0004255004 READ NUMERALS AS NEEDED.
0004255005 WRITE NUMERALS AS NEEDED.

0005255 NUMERALS
0005255001 COUNTS BEYOND BILLIONS.
0005255002 READS BEYOND BILLIONS.
0005255003 WRITES BEYOND BILLIONS.

0000260 PATTERNS

0000260001 COPY A GIVEN PATTERN OF OBJECTS OR SHAPES.

0000260002 GIVEN A SERIES OF OBJECTS OR SHAPES IN A PATTERN, DESCRIBE THE NE ES

0000260003 GIVEN A SIMPLE PATTERN, SUCH AS A TRIANGLE, A SQUARE, AND A TRIANGLE, T

0000260004 AFTER SEEING A GIVEN PATTERN OF OBJECTS THAT HAS NO MORE THAN THREE PART J
OF OBJECTS.

0001260 PATTERNS

0001260001 COPY A GIVEN PATTERN OF OBJECTS OR SHAPES.

0001260002 GIVEN A SERIES OF OBJECTS OR SHAPES IN A PATTERN, DESCRIBE THE NE S

0001260003 AFTER SEEING A GIVEN PATTERN OF OBJECTS THAT HAS NO MORE THAN FOUR J
PATTERN OF OBJECTS.

0002260 PATTERNS

0002260001 RECOGNIZE RELATIONSHIP BETWEEN GEOMETRIC AND NUMERICAL PATTERNS. M

SHAPES.

NE ES IN A PATTERN, DESCRIBE THE NEXT STEP OF THE PATTERN.

LE, TRIANGLE, A SQUARE, AND A TRIANGLE, EXTEND THE PATTERN.

PART SUBJECTS THAT HAS NO MORE THAN THREE PARTS, REPRODUCE FROM MEMORY THE SAME PATTERN

SHAPES.

NE ES IN A PATTERN, DESCRIBE THE NEXT STEP OF THE PATTERN.

UR SUBJECTS THAT HAS NO MORE THAN FOUR PARTS, REPRODUCE FROM MEMORY THE SAME

METRIC AND NUMERICAL PATTERNS.

0006265	PERCENTAGE
0006265001	INTERPRET PERCENT AS A RATIO IN WHICH THE SECOND NUMBER IS ALWAYS
0006265002	RELATE PERCENT NOTATION TO FRACTIONS AND DECIMALS.
0006265003	SOLVE PROBLEMS INVOLVING PERCENTAGE DISCOUNT.
0006265004	SOLVE ALL THREE CASES OF PERCENTAGE PROBLEMS AS PROBLEMS IN WHICH RATIOS.

AYS IN WHICH THE SECOND NUMBER IS ALWAYS 100.

RACTIONS AND DECIMALS.

CENTAGE DISCOUNT.

CH CENTAGE PROBLEMS AS PROBLEMS IN WHICH THEY FIND THE MISSING TERM OF TWO EQUIVALENT

0000270	PLACE VALUE
0000270001	RECOGNIZE THE NUMBER OF TENS AND THE NUMBER OF ONES IN A GIVEN 2 DIGIT NUMBER.
0001270	PLACE VALUE
0001270001	CONSTRUCTS SET THAT CONTAINS AS MANY OBJECTS AS A GIVEN NUMBER.
0001270002	MATCHES TWO EQUIVALENT SETS OF OBJECTS IN A ONE-TO-ONE RELATIONSHIP.
0001270003	IDENTIFIES TEN AS BEING ONE MORE THAN NINE.
0001270004	IDENTIFIES THE IDEA OF GROUPING BY TENS.
0001270005	STATES PLACE VALUE OF A PARTICULAR DIGIT.
0001270006	WRITES THE DIGIT WHICH IS IN THE TENS OR ONES PLACE AS REQUESTED FOR A GIVEN NUMBER.
0001270007	WRITES THE NUMERAL WHICH NAMES A STRUCTURED GROUP OF UP TO 100 OBJECTS.
0001270008	PLACES LESS THAN SYMBOL OR GREATER THAN SYMBOL TO INDICATE GREATER OR LESS THAN.
0001270009	GIVEN ANY NUMBER TO 150, THE STUDENT WILL IDENTIFY THE PLACE VALUE OF EACH DIGIT.
0001270010	GIVEN THE PLACE VALUE OF THE DIGITS IN ANY NUMBER TO 150, THE STUDENT WILL WRITE THE NUMERAL.
0002270	PLACE VALUE
0002270001	RENAMES TEN ONE AS ONE TEN.

THE NUMBER OF ONES IN A GIVEN 2 DIGIT NUMBER.

MANY OBJECTS AS A GIVEN NUMBER.

OBJECTS IN A ONE-TO-ONE RELATIONSHIP. MATCHES SETS TO TEN.

THAN NINE.

Y TENS.

R DIGIT.

R A TENS OR ONES PLACE AS REQUESTED FOR A GIVEN NUMBER.

TS A STRUCTURED GROUP OF UP TO 100 OBJECTS AS - TENS AND - ONES.

ATER R THAN SYMBOL TO INDICATE GREATER OR LESSER WITHOUT STRUCTURED GROUPS TO

OF E ENT WILL IDENTIFY THE PLACE VALUE OF EACH DIGIT.

DENT TS IN ANY NUMBER TO 150, THE STUDENT WILL NAME THE NUMBER.

0002270002 RENAMES ONE GREATER THAN TEN AS TENS AND ONES.

0002270003 WRITES TWO-DIGIT NUMERALS IN EXPANDED NOTATION (ONES AND TENS).

0002270004 RENAMES ONE TEN AS TEN ONES, ADDS TEN ONES TO ONES AS GIVEN. E

0002270005 RECOGNIZE THE ONES, TENS, AND HUNDREDS PLACE IN A 3 DIGIT NUM

0002270006 GIVEN THE PLACE VALUE OF THE DIGITS IN ANY NUMBER TO 999, STUD

0002270007 GIVEN ANY NUMBER TO 999, THE STUDENT WILL IDENTIFY THE PLACE VAL

0002270008 WRITE THREE-DIGIT NUMERALS IN EXPANDED NOTATION FOR EXAMPLE, 7

0002270009 IDENTIFIES PLACE VALUE OF GIVEN NUMERALS AS ONES, TENS, HUNDREDS, OR NUMBERS.

0002270010 PLACES THE NUMBER THAT COMES BEFORE, AFTER, OR BETWEEN ANY GIVEN

0002270011 WRITES FOUR DIGIT NUMERALS IN EXPANDED NOTATION.

0003270 PLACE VALUE

0003270001 REWRITE 3 DIGIT NUMBERS ROUNDING OFF TO THE NEAREST TEN OR HUNDRED

0003270002 TELL THE VALUE OF EACH DIGIT IN A 4 DIGIT NUMBER.

0003270003 WRITE FOUR-DIGIT NUMERALS IN EXPANDED NOTATION FOR EXAMPLE, 4

AS TENS AND ONES.

EXPANDED NOTATION (ONES AND TENS).

ADDS TEN ONES TO ONES AS GIVEN. EX. $56 = 4 \text{ TENS, } 16 \text{ ONES.}$

HUNDREDS PLACE IN A 3 DIGIT NUMERAL.

DIGITS IN ANY NUMBER TO 999, STUDENT WILL NAME THE NUMBER.

STUDENT WILL IDENTIFY THE PLACE VALUE OF EACH DIGIT.

IN EXPANDED NOTATION FOR EXAMPLE, $765 = 700 + 60 + 5.$

VEN NUMERALS AS ONES, TENS, HUNDREDS, AND THOUSANDS (FOUR DIGIT NUMERALS) IN WORDS

BEFORE, AFTER, OR BETWEEN ANY GIVEN THREE OR FOUR DIGIT NUMERALS.

IN EXPANDED NOTATION.

ROUNDING OFF TO THE NEAREST TEN OR HUNDRED.

IN A 4 DIGIT NUMBER.

EXPANDED NOTATION FOR EXAMPLE, $4567 = 4000 + 500 + 60 + 7.$

0003270004	NAMES ONE HUNDRED AS 10 TENS, ONE THOUSAND AS 10 HUNDREDS.
0003270005	ADDS ONE MORE TEN, ONE MORE HUNDRED, TO A THREE OR FOUR DIGIT NUMERAL.
0003270006	INTERPRET PLACE VALUE TO 10,000.
0003270007	IDENTIFIES PLACE VALUE DIGIT TO 999,999 AS ONES, TENS, HUNDREDS, THOUSANDS.
0003270008	GIVEN THE PLACE VALUE NAMES, THE STUDENT WILL EXPRESS ANY GIVEN NUMBER.
0003270009	THE STUDENT USES COMMAS TO INDICATE PERIODS TO MILLIONS.
0003270010	NAME DIGITS BY PLACE VALUE THROUGH ONE HUNDRED MILLION.
0003270011	GIVEN ANY NUMERAL TO MILLIONS, THE STUDENT WILL STATE THE RELATIONSHIP OF EACH DIGIT TO ITS POSITION TO ITS LEFT.
0004270	PLACE VALUE
0004270001	RECOGNIZE THE PLACE VALUE CONCEPTS AS THEY RELATE TO INEQUALITIES.
0004270002	NAMES ONE THOUSAND AS 100 TENS ONE MILLION AS 1000 THOUSANDS.
0004270003	ADDS ONE MORE TO THOUSANDS AND MILLIONS DIGITS.
0004270004	IDENTIFIES PLACE VALUE DIGITS THROUGH MILLIONS.
0004270005	WRITES SEVEN DIGIT NUMBERS IN EXPANDED NOTATION, WORDS, NUMERALS.

VE THOUSAND AS 10 HUNDREDS.

L. DRED, TO A THREE OR FOUR DIGIT NUMERAL.

OUS. 999,999 AS ONES, TENS, HUNDREDS, THOUSANDS.

MBE. THE STUDENT WILL EXPRESS ANY GIVEN NUMBER THROUGH MILLIONS.

ATE PERIODS TO MILLIONS.

UGH ONE HUNDRED MILLION.

SHIP. THE STUDENT WILL STATE THE RELATIONSHIP BETWEEN ANY ONE POSITION AND THE

PTS AS THEY RELATE TO INEQUALITIES.

ONE MILLION AS 1000 THOUSANDS.

MILLIONS DIGITS.

ROUGH MILLIONS.

PANDED NOTATION, WORDS, NUMERALS.

0004270006 INTERPRET PLACE VALUE FOR LARGE NUMBERS.

0005270 PLACE VALUE

0005270001 IDENTIFIES LARGER OR SMALLER NUMBER IN A GIVEN COMPARISON
AND EXPANDED NOTATION.

0005270002 RECOGNIZE THE PLACE VALUE OF EACH DIGIT OF A NUMBER TO THE MILLI

0005270003 WRITE A GIVEN NUMERAL TO MILLIONS IN EXPANDED FORM AND GIVEN A N

0005270004 GIVEN A NUMERAL TO HUNDRED MILLIONS, EXPRESS IT ORALLY AND WRITE
NUMBER TO HUNDRED MILLIONS, EXPRESS IT ORALLY AND WRITE IT AS A N

0006270 PLACE VALUE

0006270001 EXPRESS ORALLY AND WRITE NUMERALS FOR NUMBERS TO BILLIONS.

0006270002 DESCRIBE THE PLACE VALUE OF EACH DIGIT OF A NUMBER TO BILLIONS

ARGE NUMBERS.

ISO	NUMBER IN A GIVEN	COMPARISON OF NUMBERS BY USING KNOWLEDGE OF PLACE VALUE
LLI	EACH DIGIT OF A NUMBER TO	THE MILLIONS PLACE.
A N	LIONS IN EXPANDED FORM AND	GIVEN A NUMBER IN EXPANDED FORM, WRITE THE NUMERAL.
ITE	TLLIONS, EXPRESS IT ORALLY	AND WRITE IT IN WORD FORM, AND GIVEN THE WORD FORM OF A
A N	EXPRESS IT ORALLY AND WRITE	IT AS A NUMERAL.
NS.	ERALS FOR NUMBERS TO	BILLIONS.
NS	EACH DIGIT OF A NUMBER TO	BILLIONS AND GIVE THE DIGITS VALUE IN EXPANDED FORM.

0006275	PROBABILITY	
0006275001	CARRIES OUT SIMPLE EXPERIMENTS IN PROBABILITY.	
0006275002	RECORDS SIMPLF EXPERIMENTS IN PROBABILITY.	
0006275003	INTERPRETS RESULTS FROM SIMPLE EXPERIMENTS IN	PROBABILITY.

0006280

PROPORTION

0006280001

USE PROPORTIONS IN PROBLEMS ABOUT THE LENGTH OF SIDES IN SIMILAR T

TY.

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R T ABOUT THE LENGTH OF SIDES IN SIMILAR TRIANGLES.

0003285	RATIO	
0003285001	INTERPRET SIMPLE RATIO SITUATIONS, SUCH AS 2 APPLES FOR	FOR 15 CENTS,
0003285002	RECOGNIZE THAT RATIOS SUCH AS 8 TO 20 AND 4 TO 10 ARE	EQUIVALENT RATIOS
0004285	RATIO	
0004285001	MAKE UP SETS OF EQUIVALENT RATIOS FOR GIVEN PHYSICAL	SITUATIONS, SUCH AS
0004285002	DETERMINE IF TWO RATIOS ARE EQUIVALENT BY USING THE	PROPERTY OF PROPORTION
	MULTIPLICATION. FOR EXAMPLE, $3/4 = 9/12$ BECAUSE 3×12	$= 4 \times 9$, WHERE
0004285003	FIND THE MISSING WHOLE NUMBER IN TWO EQUIVALENT RATIOS	LIKE $2/3 = x/9$
0004285004	USE EQUIVALENT RATIOS TO CONVERT UNITS OF MEASURE TO	FIND HOW MANY UNITS
0005285	RATIO	
0005285001	FIND THE MISSING TERM IN A PROPORTION SUCH AS $2/5 = x/9$	BY USING THE CROSS PRODUCT
0005285002	USE MEMBERS OF SETS OF EQUIVALENT RATIOS WITH THE SAME	FIRST TERM OR THE SAME
	RATIOS.	
0005285003	USE THE IDEAS OF RATIO AND EQUIVALENT RATIO WITH	PROBLEMS THAT INVOLVE
0006285	RATIO	
0006285001	USE EQUIVALENT RATIOS TO CONVERT FRACTIONS TO DECIMALS	AND CONVERSELY, CONVERT

S, SUCH AS 2 APPLES FOR 15 CENTS, WRITTEN. $2/15$.

RAT 20 AND 4 TO 10 ARE EQUIVALENT RATIOS (REPRESENT THE SAME RATE).

SU FOR GIVEN PHYSICAL SITUATIONS, SUCH AS $1/2$, $2/4$, $3/6$, $4/8$, . . .

PRO ALLENT BY USING THE PROPERTY OF PROPORTIONS COMMONLY CALLED CROSS
ERE $= 9/12$ BECAUSE $3 \times 12 = 4 \times 9$, WHEREAS $6/7 = 7/8$ BECAUSE $6 \times 8 \neq 7 \times 7$.

X/9 TWO EQUIVALENT RATIOS LIKE $2/3 = X/9$ OR $5/X = 25/70$.

NY UNITS OF MEASURE TO FIND HOW MANY PINTS THERE ARE IN 3 GALLONS.

E CR TION SUCH AS $2/5 = X/9$ BY USING THE CROSS MULTIPLICATION PROPERTY.

OR RATIOS WITH THE SAME FIRST TERM OR THE SAME SECOND TERM TO COMPARE DIFFERENT

AT ENT RATIO WITH PROBLEMS THAT INCLUDE FRACTIONS AS TERMS.

ELY FRACTIONS TO DECIMALS AND CONVERSELY.

0006285002

SOLVE RATIO PROBLEMS WHERE SOME OR ALL OF THE TERMS OF THE RATIO SO

0006285003

RELATE RATIOS TO GEOMETRY.

TIO SOME OR ALL OF THE TERMS OF THE RATIOS ARE WRITTEN AS DECIMALS.

0006290

SCIENTIFIC NOTATION

0006290001

EXPRESS LARGE NUMBERS BY USING SCIENTIFIC NOTATION.

0000295	SETS	
0000295001	KNOW THAT A SET IS AN AGGREGATE, GROUP OR COLLECTION OF	OBJECTS
0000295002	KNOW THAT A SET MAY BE IDENTIFIED EITHER BY LISTING OR	DESCRIBI
0000295003	GIVEN A GROUP OF OBJECTS WITH ONE OBJECT DIFFERENT FROM	THE REST
0000295004	RECOGNIZE THE SMALLEST OR LARGEST OBJECT IN A GROUP OF	OBJECTS.
0000295005	GIVEN A GROUP OF OBJECTS, RECOGNIZE THOSE THAT ARE THE	SAME SIZE
	ARE THE SAME COLOR.	
0000295006	GIVEN A SET OF OBJECTS, COMPARE THEM AND IDENTIFY AND	NAME THE
0000295007	RECOGNIZE THE SIMILARITIES OF GIVEN OBJECTS	SIZE, WEIGHT,
0000295008	GIVEN AN OBJECT, IDENTIFY ITS POSITION IN RELATION TO	ANOTHER O
	MARK PICTURES ACCORDING TO DIRECTIONS GIVEN BY THE	TEACHER.
0000295009	GIVEN SETS OF PICTURES DEPICTING DIFFERENCES IN SIZE AS	LONGER, S
	PICTURE ACCORDING TO DIRECTIONS GIVEN BY THE TEACHER,	
0000295010	GIVEN A VERBAL DESCRIPTION OF A SET, DISTINGUISH BETWEEN MEMBERS O	
0000295011	THE SET THAT CONTAINS NO MEMBERS IS CALLED THE EMPTY	SET.
0000295012	GIVEN PAIRS OF SETS, COMPARE THE SETS BY VISUAL	INSPECTIO
	TO DIRECTIONS GIVEN BY THE TEACHER.	
0000295013	USE SUCH TERMS AS MORE THAN, AS MANY AS, FEWER THAN	WHEN COM
0000295014	TWO SETS THAT CONTAIN THE SAME MEMBERS ARE SAID TO BE	EQUAL.

STATE, GROUP OR COLLECTION OF OBJECTS OR IDEAS THAT WE WISH TO TREAT TOGETHER.

IDENTIFIED EITHER BY LISTING OR DESCRIBING ITS MEMBERS.

WITH ONE OBJECT DIFFERENT FROM THE REST, RECOGNIZE THE OBJECT THAT IS DIFFERENT.

LARGEST OBJECT IN A GROUP OF OBJECTS.

RECOGNIZE THOSE THAT ARE THE SAME SIZE, THOSE THAT ARE THE SAME SHAPE, OR THOSE THAT

COMPARE THEM AND IDENTIFY AND NAME THE HEAVIEST AND LIGHTEST.

OF GIVEN OBJECTS SIZE, WEIGHT, POSITION, COLOR, SHAPE, COMPOSITION, USE.

ITS POSITION IN RELATION TO ANOTHER OBJECT (IN, ON, OVER, UNDER, BESIDE) AND WILL. DIRECTIONS GIVEN BY THE TEACHER.

NOTING DIFFERENCES IN SIZE AS LONGER, SHORTER, TALLER, LARGER, SMALLER, MARK THE DIRECTIONS GIVEN BY THE TEACHER.

OF A SET, DISTINGUISH BETWEEN MEMBERS OF THE SET AND THINGS WHICH ARE NOT MEMBERS.

MEMBERS IS CALLED THE EMPTY SET.

THE SETS BY VISUAL INSPECTION AND FIND THE LARGER OR SMALLER SET ACCORDING TEACHER.

AS MANY AS, FEWER THAN WHEN COMPARING SETS OF OBJECTS.

SOME MEMBERS ARE SAID TO BE EQUAL.

0000295015 GIVEN TWO EQUIVALENT SETS (OBJECTS OR PICTURES) THROUGH ONE-TO-ONE MATCHING.

0000295016 GIVEN TWO NON-EQUIVALENT SETS (OBJECTS OR PICTURES) THROUGH ONE-TO-ONE MATCHING. EQUIVALENT.

0000295017 UTILIZE THE IDEA ONE MORE THAN IN ORGANIZING SETS IN THE NATURAL ORDER.

0000295018 IDENTIFY, WITHOUT COUNTING, THE NUMBER OF SETS WITH TWO, THREE, OR FOUR MEMBERS.

0000295019 COMPARE TWO NON-MATCHING SETS OF FEWER THAN 10 OBJECTS AND DECIDE WHICH SET HAS FEWER MEMBERS.

0000295020 DETERMINE WHETHER TWO SETS ARE EQUIVALENT (CAN BE MATCHED OR PLACED IN ONE-TO-ONE CORRESPONDENCE).

0000295021 IDENTIFY TWO EQUIVALENT SETS BY PLACING THE MEMBERS OF THE SET IN ONE-TO-ONE CORRESPONDENCE.

0000295022 DETERMINE THAT 3 IS GREATER THAN 2 AND THAT 2 IS LESS THAN 3 BY COMPARING TWO SETS. THIS FOR ANY TWO NUMBERS LESS THAN 6.

0000295023 REARRANGE SETS OF OBJECTS TO DEMONSTRATE THE JOINING OF SETS, AND THEREFORE THE ORDER OF SETS.

0000295024 GIVEN TWO SETS, JOIN THE TWO SETS AND GET A THIRD SET.

0000295025 DEMONSTRATE IF YOU JOIN A SET OF ONE ELEMENT TO A SET CONTAINING TWO ELEMENTS, YOU GET A SET OF TWO ELEMENTS WITH A SET OF ONE ELEMENT.

0000295026 GIVEN A SET OF ELEMENTS, REMOVE A SET AND GET A REMAINING SET.

0000295027 SOLVE SIMPLE ADDITION PROBLEMS WHERE THE SUM OF THE PARTS IS 5 OR LESS. THE ORALLY PROPOSED PROBLEM. COUNTERS MAY BE USED.

0000295028 GIVEN A SET OF 10 OBJECTS, CONTAINING TWO OR MORE SUBSETS, IDENTIFY THE SUBSETS ORALLY.

MATCH (OR PICTURES) THROUGH ONE-TO-ONE MATCHING, IDENTIFY THE SETS AS EQUIVALENT.

-TO- OBJECTS OR PICTURES) THROUGH ONE-TO-ONE MATCHING, IDENTIFY THE SETS AS NON-

ORDER IN ORGANIZING SETS IN THE NATURAL ORDER.

DURING NUMBER OF SETS WITH TWO, THREE, OR FOUR OBJECTS.

WHICH FEWER THAN 10 OBJECTS AND DECIDE WHICH SET HAS MORE MEMBERS AND WHICH SET

PLACEMENT IVALENT (CAN BE MATCHED OR PLACED IN A ONE-TO-ONE CORRESPONDENCE),

ONE- PLACING THE MEMBERS OF THE SET IN ONE-TO-ONE CORRESPONDENCE.

COMPARISON AND THAT 2 IS LESS THAN 6. COMPARING APPROPRIATE SETS OF OBJECTS AND DO

HERE DEMONSTRATE THE JOINING OF SETS, AND THEREBY DEVELOP A READINESS FOR ADDITION.

AND GET A THIRD SET.

TWO ONE ELEMENT TO A SET CONTAINING TWO ELEMENTS, IT IS THE SAME AS JOINING A
ONE ELEMENT.

SET AND GET A REMAINING SET.

OR LESS THE SUM OF THE PARTS IS 5 OR LESS BY ORALLY INDICATING THE ANSWER TO
QUESTIONS MAY BE USED.

IDENTIFYING TWO OR MORE SUBSETS, IDENTIFY THE NUMBER OF SUBSETS WITHIN THE SET

0000295029	GIVEN MORE THAN ONE SUBSET, COMBINE SUBSETS AND ORALLY INDICATE PRODUCES TO 10.	INDICATE
0000295030	REARRANGE SETS OF OBJECTS TO DEMONSTRATE THE SEPARATING OF SETS,	OF SETS,
0000295031	SOLVE SIMPLE SUBTRACTION PROBLEMS BY USING COUNTERS WHEN THE INDICATE THE ANSWER TO THE ORALLY PROPOSED PROBLEMS.	WHEN THE
0001295	SETS	
0001295001	RECOGNIZE A GROUP OF OBJECTS THAT HAVE SOMETHING IN	COMMON.
0001295002	DISCRIMINATES SIMILARITIES AMONG OBJECTS.	
0001295003	DISCRIMINATES DIFFERENCES AMONG OBJECTS.	
0001295004	GIVEN A GROUP OF OBJECTS, RECOGNIZE THOSE THAT ARE THE SAME SIZE ARE THE SAME COLOR.	SAME SIZE
0001295005	GIVEN A GROUP OF OBJECTS WITH TWO OBJECTS DIFFERENT FROM THE REST,	
0001295006	SELECTS NON-EQUIVALENT SETS AND INDICATES WHICH HAS MORE OR LESS.	
0001295007	CONSTRUCTS NON-EQUIVALENT SETS AND INDICATES WHICH HAS MORE AND	MORE AND
0001295008	PLACES LESS THAN SYMBOL OR GREATER THAN SYMBOL BETWEEN 2 NUMBERS TO GROUPS TO 9.	TO 9.
0001295009	PLACES GREATER THAN SYMBOL OR LESS THAN SYMBOL BETWEEN 2 NUMBERS TO STRUCTURED GROUPS TO 100.	TO 100.
0001295010	SELECTS A SET THAT CONTAINS AS MANY OBJECTS AS A GIVEN	NUMBER.

COMBINE SUBSETS AND ORALLY INDICATE HOW MANY THE COMBINATION OF THE SUBSETS
 DEMONSTRATE THE SEPARATING OF SETS, THEREBY DEVELOPING A READINESS FOR SUBTRACTION
 PROBLEMS BY USING COUNTERS WHEN THE PARTS OF THE WHOLE EQUAL 5 OR LESS, ORALLY
 PROPOSED PROBLEMS.
 THAT HAVE SOMETHING IN COMMON.
 AMONG OBJECTS.
 AMONG OBJECTS.
 COGNIZE THOSE THAT ARE THE SAME SIZE, THOSE THAT ARE THE SAME SHAPE, OR THOSE THAT
 WITH TWO OBJECTS DIFFERENT FROM THE REST, RECOGNIZE THE OBJECTS THAT ARE DIFFERENT.
 AND INDICATES WHICH HAS MORE OR LESS.
 AND INDICATES WHICH HAS MORE AND LESS.
 TO GREATER THAN SYMBOL BETWEEN 2 NUMBERS TO INDICATE GREATER OR LESSER WITH STRUCTURED
 TO LESSER THAN SYMBOL BETWEEN 2 NUMBERS TO INDICATE THE GREATER OR LESSER WITH
 AS MANY OBJECTS AS A GIVEN NUMBER.

- 0001295011 COMPARES TWO NON-EQUIVALENT SETS AND INDICATES WHICH HAS MORE OR LESS THRO
- 0001295012 MATCHES TWO NONEQUIVALENT SETS AND INDICATES WHICH HAS MORE OR LESS.
- 0001295013 DETERMINE THAT 8 IS GREATER THAN 5 AND THAT 5 IS LESS THAN 8 BY COMPAR
THIS FOR ANY TWO NUMBERS LESS THAN 10.
- 0001295014 COUNT THE MEMBERS OF A SET CONTAINING ONE HUNDRED OR FEWER MEMBERS.
- 0001295015 COMPARE TWO NON-MATCHING SETS OF LESS THAN 100 OBJECTS TO DECIDE WHICH
- 0001295016 GIVEN EXAMPLES OF SETS, THE STUDENT IDENTIFIES EMPTY SET.
- 0001295017 USE 0 AS THE SYMBOL FOR THE NUMBER OF FLEMENTS IN THE EMPTY SET.
- 0001295018 EXPRESS THE EMPTY SET.
- 0001295019 EXPRESS SUBSETS.
- 0001295020 IDENTIFY THE PROCESS OF ADDITION THROUGH EXPERIENCE WITH JOINING TWO SETS
- 0001295021 IDENTIFIES THE PLUS SIGN (+) AS IT IS RELATED TO JOINING OF TWO DISJOINT
- 0001295022 EXPRESS THE UNION OF SETS.
- 0001295023 ADD DISJGINT SETS.
- 0001295024 USING SETS, THE STUDENT WILL ILLUSTRATE THE COMMUTATIVE PROPERTY OF ADDI

THROUGH INDICATES WHICH HAS MORE OR LESS THROUGH VISUAL INSPECTION.

INDICATES WHICH HAS MORE OR LESS.

PAR AND THAT 5 IS LESS THAN 8 BY COMPARING APPROPRIATE SETS OF OBJECTS AND DO 10.

ING ONE HUNDRED OR FEWER MEMBERS.

CH LESS THAN 100 OBJECTS TO DECIDE WHICH SET HAS FEWER (MORE) MEMBERS.

T IDENTIFIES EMPTY SET.

ER OF FLEMENTS IN THE EMPTY SET.

SETS THROUGH EXPERIENCE WITH JOINING TWO SETS OF OBJECTS.

ENT IS RELATED TO JOINING OF TWO DISJOINT SETS.

ADD STRATE THE COMMUTATIVE PROPERTY OF ADDITION.

0001295025	IDENTIFY THE PROCESS OF SUBTRACTION THROUGH EXPERIENCE WITH SEPA	TR
0002295	SETS	
0002295001	IDENTIFIES EQUIVALENT SETS 0-10.	0-
0002295002	IDENTIFIES NON-EQUIVALENT SETS 0-10.	ETS
0002295003	ADD EQUIVALENT SETS.	
0002295004	IDENTIFY THE PROCESS OF MULTIPLICATION THROUGH OBJECTS.	EXPERIENCE IF
0003295	SETS	
0003295001	RECOGNIZE A NUMBER AS BEING GREATER THAN, EQUAL TO, OR LESS THAN	GR
0003295002	EXPRESS A SET OF ELEMENTS IN SET NOTATION AND CONCLUDE IF THE TWO	U S
0003295003	DEFINE THE SUBSETS OF A GIVEN SET.	EN
0003295004	DESCRIBE THE UNION OF TWO SETS.	ETS
0003295005	FINDS UNION OF SETS.	
0003295006	DEMONSTRATE WITH SETS OF OBJECTS THE RELATIONSHIP BETWEEN SU	EC
	28 / 7 = 4.	
0003295007	GIVEN ANY TWO SETS, THE STUDENT WILL NAME THE CROSS PRODUCTS.	EN

SEPARATION THROUGH EXPERIENCE WITH SEPARATING A SUBSET FROM A SET OF OBJECTS.

0-10.

SETS 0-10.

REPLICATION THROUGH EXPERIENCE WITH JOINING SEVERAL EQUIVALENT SETS OF

HAN GREATER THAN, EQUAL TO, OR LESS THAN A SECOND NUMBER.

TWO SET NOTATION AND CONCLUDE IF THE TWO SETS ARE EQUIVALENTS.

EN SET.

SETS.

SUBJECTS THE RELATIONSHIP BETWEEN SUCH SENTENCES AS $4 \times 7 = 28$, $28 / 4 = 7$ AND

STUDENT WILL NAME THE CROSS PRODUCTS.

0004295

SETS

0004295001

GIVEN A SET, THE STUDENT WILL DESCRIBE AN APPROPRIATE UNIVERSE.

0004295002

GIVEN A UNIVERSAL SET AND AN OPEN SENTENCE, THE STUDENT WILL DESCRIBE THE SET

0004295003

GIVEN SETS, THE STUDENT WILL IDENTIFY THEM AS FINITE OR INFINITE.

0005295

SETS

0005295001

RECOGNIZE ALL THE SUBSETS OF A SET.

0005295002

IDENTIFY AND TELL THE DIFFERENCE BETWEEN EQUAL SETS AND EQUIVALENT SETS.

0005295003

DESCRIBE THE SET WHICH IS THE UNION OF TWO SETS.

0005295004

DESCRIBE THE SET WHICH IS THE INTERSECTION OF TWO SETS.

0005295005

GIVEN A DESCRIPTION OF SET, INCLUDING EMPTY SET, WRITE ITS ELEMENTS USING

0005295006

GIVEN A SET AND AN OPERATION, THE STUDENT WILL IDENTIFY THE SET AS BEING

DESCRIBE AN APPROPRIATE UNIVERSE.

IN THE SENTENCE, THE STUDENT WILL DESCRIBE THE SOLUTION SET.

CLASSIFY THEM AS FINITE OR INFINITE.

SETS. BETWEEN EQUAL SETS AND EQUIVALENT SETS.

UNION OF TWO SETS.

INTERSECTION OF TWO SETS.

USING AN EMPTY SET, WRITE ITS ELEMENTS USING SET NOTATION.

BEING STUDENT WILL IDENTIFY THE SET AS BEING CLOSED OR OPEN UNDER THAT OPERATION.

0006310

STATISTICS

0006310001

DETERMINES AVERAGE BY PERFORMING THE APPROPRIATE PROBLEM SITUATIONS.

0000315	SUBTRACTION	
0000315001	WITH A PICTURE OF TWO SETS OF OBJECTS, SUBTRACT A 1	DIGIT NUMBER FROM A SET
0000315002	WITH A NUMBER LINE, SUBTRACT A 1 DIGIT NUMBER FROM A	LARGER 1 DIGIT NUMBER
0001315	SUBTRACTION	
0001315001	FILLS IN MISSING ADDENDS TO MAKE TRUE NUMBER SENTENCES	FOR PICTURED ADDITION
0001315002	FILLS IN NUMBERS (MISSING ADDENDS) TO MAKE TRUE NUMBER	SENTENCES FOR PICTURED ADDITION
0001315003	IDENTIFIES THE INVERSE RELATION BETWEEN SUBTRACTION AND	ADDITION (USING PICTURED SETS)
0001315004	IDENTIFIES THE INVERSE RELATION BETWEEN SUBTRACTION AND	ADDITION (USING PICTURED SETS)
0001315005	IDENTIFIES THE ROLE OF ZERO IN SUBTRACTION PROBLEMS.	
0001315006	IDENTIFIES THE MINUS SIGN (-) AS A SYMBOL MEANING TAKE AWAY.	
0001315007	IDENTIFIES THE SOLUTION TO SUBTRACTION PROBLEMS AS BEING CALLED THE DIFFERENCE	
0001315008	FILLS IN MISSING SUMS TO MAKE TRUE NUMBER SENTENCES FOR	PICTURED SUBTRACTION
0001315009	SOLVES SUBTRACTION EQUATIONS OF SETS NOT LARGER THAN 5,	(FIRST HORIZONTAL SET)
0001315010	SOLVES SUBTRACTION EQUATIONS OF SETS 6-9.	
0001315011	IDENTIFIES THE RELATIONSHIP IN FINDING A MISSING ADDEND	AND FINDING A DIFFERENCE

FACTS, SUBTRACT A 1 DIGIT NUMBER FROM A LARGER 1 DIGIT NUMBER.

IT DIGIT NUMBER FROM A LARGER 1 DIGIT NUMBER.

AD TRUE NUMBER SENTENCES FOR PICTURED ADDITION SITUATIONS.

R P TO MAKE TRUE NUMBER SENTENCES FOR PICTURED SUBTRACTION SITUATIONS.

ING BETWEEN SUBTRACTION AND ADDITION (USING NUMERALS THROUGH 5).

ING BETWEEN SUBTRACTION AND ADDITION (USING NUMERALS 6-9).

TRACTION PROBLEMS.

SYMBOL MEANING TAKE AWAY.

DIFFERENCE PROBLEMS AS BEING CALLED THE DIFFERENCE.

TRAC NUMBER SENTENCES FOR PICTURED SUBTRACTION SITUATIONS.

ONTA TS NOT LARGER THAN 5, (FIRST HORIZONTAL, THEN VERTICAL).

TS 6-9.

A DIVIDING A MISSING ADDEND AND FINDING A DIFFERENCE.

0001315012	SOLVES SUBTRACTION EQUATION RELATED TO A SET OF 10.	FIRST HORI
0001315013	SOLVES SUBTRACTION EQUATIONS WITH DIFFERENCES TO 10,	(FIRST HOR
0001315014	IDENTIFIES THE IDEA OF SUBTRACTING IN PARTS USING MORE	THAN ONE S
0001315015	SOLVES SUBTRACTION EQUATION OF SETS TO 19.	
0002315	SUBTRACTION	
0002315001	FILLS IN ADDENDS TO MAKE TRUE NUMBER SENTENCES.	
0002315002	COMPLETES EXERCISES ON INVERSE RELATION BETWEEN ADDITION AND SUBTRAC	
0002315003	FINDS DIFFERENCES USING THE NUMBER LINE.	
0002315004	USES NUMBER LINE TO FIND MISSING ADDENDS.	
0002315005	RECOGNIZE THAT SUBTRACTION IS NOT COMMUTATIVE.	
0002315006	SUBTRACT A 1 DIGIT NUMERAL FROM A LARGER 1 DIGIT NUMERAL VERTICALLY	
0002315007	RECOGNIZE ZERO AS THE IDENTITY ELEMENT FOR SUBTRACTION	IN THE SET
0002315008	SOLVES TWO DIGIT SUBTRACTION EQUATIONS WITHOUT	REGROUPING.
0002315009	IDENTIFIES THE INVERSE RELATIONSHIP OF SUBTRACTION AND	ADDITION IN

HORIZONTAL RELATED TO A SET OF 10. FIRST HORIZONTAL THEN VERTICAL.

HORIZONTAL WITH DIFFERENCES TO 10. (FIRST HORIZONTAL THEN VERTICAL).

THE SUBTRACTING IN PARTS USING MORE THAN ONE STEP.

OF SETS TO 19.

NUMBER SENTENCES.

TRACE THE RELATION BETWEEN ADDITION AND SUBTRACTION TO 10.

NUMBER LINE.

USING ADDENDS.

IS NOT COMMUTATIVE.

LY FROM A LARGER 1 DIGIT NUMERAL VERTICALLY AND/OR HORIZONTALLY.

SET BY ELEMENT FOR SUBTRACTION IN THE SET OF WHOLE NUMBERS.

ING. EQUATIONS WITHOUT REGROUPING.

IN THE RELATIONSHIP OF SUBTRACTION AND ADDITION IN USING 0-9.

0002315010 RECOGNIZES AND USES SYMBOLS (-) AND (=).

0002315011 SOLVES SUBTRACTION EQUATIONS FROM SETS, 0-9.

0002315012 RECOGNIZES INVERSE RELATIONSHIP OF ADDITION AND SUBTRACTION THROUGH

0002315013 USES HORIZONTAL AND VERTICAL PATTERNS FOR SUBTRACTION.

0002315014 FIND THE MISSING NUMBER IN A SUBTRACTION PROBLEM WHERE THE NUMERALS ARE

0002315015 RECALL THE SUBTRACTION FACTS THROUGH SUM OF 18.

0002315016 SUBTRACT NUMERALS WHERE THE MINUEND IS NOT GREATER THAN 18.

0002315017 RECOGNIZES THE INEQUALITIES IN PREPARATION FOR SUBTRACTING WITH

0002315018 BEGIN TO APPRECIATE USE OF TEN TO MAKE SUBTRACTION EASY.

0002315019 REGROUPS TENS IN TWO DIGIT NUMBERS FOR SUBTRACTION.

0002315020 SUBTRACT 2 DIGIT NUMERALS WITHOUT REGROUPING.

0002315021 SUBTRACT 2 DIGIT NUMERALS WITH REGROUPING.

0002315022 SOLVES SUBTRACTION EQUATIONS INVOLVING THREE AND FOUR DIGIT NUMERALS

ND (=).

SETS, 0-9.

THROUGH ADDITION AND SUBTRACTION THROUGH 18.

TERNS FOR SUBTRACTION.

ARE SUBTRACTION PROBLEM WHERE THE NUMERALS ARE LESS THAN 18.

UGH SUM OF 18.

ND IS NOT GREATER THAN 18.

WITH PREPARATION FOR SUBTRACTING WITH REGROUPING,

MAKE SUBTRACTION EASY.

S FOR SUBTRACTION.

REGROUPING.

GROUPING.

LS INVOLVING THREE AND FOUR DIGIT NUMERALS NO REGROUPING.

0003315	SUBTRACTION	
0003315001	RECOGNIZES SUBTRACTION AS THE INVERSE OF ADDITION.	
0003315002	WRITES RELATED SUBTRACTION EQUATIONS FOR GIVEN SETS.	
0003315003	WRITES RELATED SUBTRACTION EQUATIONS FOR GIVEN	NUMBER LINE
0003315004	SUBTRACT A 2 OR 3 DIGIT NUMERAL FROM A 3 DIGIT NUMERAL	WITHOUT RE
0003315005	STUDENT USES THE VERTICAL ALGORITHM TO SOLVE SUBTRACTION	PROBLEMS O
0003315006	SUBTRACTS MULTI-DIGITED NUMERALS. NO GROUPING.	
0003315007	SUBTRACTS, REGROUPING TENS AS ONES OR HUNDREDS AS TENS.	TWO, THREE
0003315008	RECOGNIZES SUBTRACTION-OPERATION, ONE-STEP AND TWO AND	THREE STEP
0003315009	SOLVES WRITTEN SUBTRACTION PROBLEMS ONE-STEP AND TWO	AND THREE
0003315010	SOLVE WORD PROBLEMS FOR SUBTRACTION OF 2 NUMERALS WITH	NO MORE TH
0003315011	WRITE AND SOLVE EQUATIONS FOR STORY PROBLEMS REQUIRING	SUBTRACTION
0004315	SUBTRACTION	
0004315003	SUBTRACT USING THREE-PLACE NUMERALS AND FOUR-PLACE	NUMERALS.

BE INVERSE OF ADDITION.

EQUATIONS FOR GIVEN SETS.

LINE EQUATIONS FOR GIVEN NUMBER LINES.

RE REDUCED FROM A 3 DIGIT NUMERAL WITHOUT REGROUPING.

MS OF ALGORITHM TO SOLVE SUBTRACTION PROBLEMS OF THREE AND FOUR DIGIT NUMERALS.

NUMERALS. NO GROUPING.

THREE AS ONES OR HUNDREDS AS TENS. TWO, THREE, FOUR DIGIT NUMERALS.

STEP BY STEP. ONE-STEP AND TWO AND THREE STEPS WHEN STEPS ARE INDICATED.

THREE PROBLEMS ONE-STEP AND TWO AND THREE STEPS WHEN STEPS ARE INDICATED.

THE SUBTRACTION OF 2 NUMERALS WITH NO MORE THAN 4 DIGITS.

STORY PROBLEMS REQUIRING SUBTRACTION OF 1 OR 2 DIGIT NUMBERS.

S. NUMERALS AND FOUR-PLACE NUMERALS.

0005315 SUBTRACTION

0005315001 DEMONSTRATE A WORKING KNOWLEDGE OF THE BASIC SUBTRACTION FACTS, OPERATION

0005315002 STUDENT REGROUPS TO SOLVE MULTI-DIGIT SUBTRACTION PROBLEMS. GI

0005315003 FIND THE DIFFERENCE BETWEEN 2 NUMBERS, NEITHER OF WHICH HAS MORE THAN 4 ER

0005315004 WRITE AN EQUATION FOR A WORD PROBLEM INVOLVING SUBTRACTION, AND EM

0005315005 SOLVES ANY GIVEN SUBTRACTION EQUATION INVOLVING WHOLE NUMBERS USING TH IO

0006315 SUBTRACTION

0006315001 SUBTRACT NUMBERS WITH 3 OR MORE DIGITS. GI

0006315002 GIVEN A WORD PROBLEM INVOLVING ADDITION AND/OR SUBTRACTION OF A IT
PROBLEM AND SOLVE THE EQUATION.

THE BASIC SUBTRACTION FACTS, OPERATIONS AND FUNCTIONS.

GIT SUBTRACTION PROBLEMS.

N 4 DIGITS, NEITHER OF WHICH HAS MORE THAN 4 DIGITS.

AND THEM INVOLVING SUBTRACTION, AND FIND THE ANSWER.

IN INVOLVING WHOLE NUMBERS USING THE SUBTRACTION ALGORITHM.

GITS.

OF ADDITION AND/OR SUBTRACTION OF WHOLE NUMBERS, WRITE AN EQUATION FOR THE

0001320	SUBTRACTION (WORD PROBLEMS)
0001320001	SOLVE WORD PROBLEMS INVOLVING SUBTRACTION OF TWO 2 DIGIT NUMERALS.
0002320	SUBTRACTION (WORD PROBLEMS)
0002320001	SOLVE WORD PROBLEMS FOR SUBTRACTION WHERE THE MINUEND IS NOT GREATER THAN THE SUBTRAHEND.
0003320	SUBTRACTION (WORD PROBLEMS)
0003320001	SOLVE TO THE NEAREST MINUTE, 1 STEP SUBTRACTION STORY PROBLEMS IN WHICH THE MINUEND IS GREATER THAN THE SUBTRAHEND.

LS. LONG SUBTRACTION OF TWO 2 DIGIT NUMERALS.

GRE TRACTION WHERE THE MINUEND IS NOT GREATER THAN 18.

IS 1 STEP SUBTRACTION STORY . PROBLEMS INVOLVING TIME.

0000325	VALUE OF COINS	
0000325001	RECOGNIZE PENNIES, NICKELS, DICES.	
0000325002	IDENTIFY A PENNY, NICKEL, DIME AND TELL THE VALUE OF	EACH.
0000325003	FIND THE VALUE OF A GIVEN GROUP OF PENNIES, NICKELS, AND DICES THAT TOTAL	F P
0001325	VALUE OF COINS	
0001325001	RECOGNIZES PENNY, ITS VALUE AND SYMBOL.	YMR
0001325002	USES CENTS SIGN.	
0001325003	USES TERM CENT.	
0001325004	RECOGNIZES NICKEL, DIME.	
0001325005	FINDS VALUE OF PENNIES AND NICKELS.	S.
0001325006	RECOGNIZE THE COMPARATIVE VALUE OF COINS (PENNIES,	NICKELS, DICES) F C
0001325007	RECOGNIZES QUARTER.	
0001325008	IDENTIFIES HALF DOLLAR AND DOLLAR.	
0001325009	MATCHES COINS WITH NUMERICAL VALUES.	ES.
0001325010	ADD TO 50 CENTS.	

TO TELL THE VALUE OF EACH.

TOTAL OF PENNIES, NICKELS, AND DIMES THAT TOTAL LESS THAN \$1.00.

SYMBOL.

S.

ES). OF COINS (PENNIES, NICKELS, DIMES).

ES.

0001325011	SELECT FROM A GROUP OF COINS A COMBINATION OF COINS THAT TOTALS 75	VA
0001325012	USE COINS IN MAKING CHANGE (PENNIES, NICKELS, DIMES).	PE
0001325013	UNDERSTAND THAT PRICE TAGS ARE RECORDED MEASUREMENTS OF MONEY.	RE
0002325	VALUE OF COINS	
0002325001	IDENTIFIES THE COINS, PENNY, NICKEL, DIME, QUARTER, HALF DOLLA	N
0002325002	MAKE CHANGE CORRECTLY FOR QUANTITIES UP TO 25 CENTS.	AN
0002325003	GIVES CHANGE IN SMALLEST NUMBER OF COINS FOR VALUES TO 75 CENTS.	BE
0002325004	SOLVES ADDITION AND SUBTRACTION MONEY PROBLEMS, AMOUNTS LESS THAN	IO
0002325005	GIVES VALUE OF COIN COLLECTIONS INVOLVING ALL U.S. COINS BY COUNTIN	ON
0002325006	SELECTS COINS EQUAL IN VALUE TO SUMS TO \$1.00 OUT OF A SET OF MIX	T
0003325	VALUE OF COINS	
0003325001	IDENTIFIES PENNY AS REPRESENTING THE ONES DIGIT AND DIME AS REPRESE	TI
0003325002	CONVERTS VALUES IN CENTS TO DOLLARS AND CENTS, USING THE USUAL DECI	DO
0003325003	GIVES VALUE OF COIN COLLECTIONS IN CENTS.	ON

75 A COMBINATION OF COINS THAT TOTALS 75 CENTS.

PENNIES, NICKELS, DIMES).

RE RECORDED MEASUREMENTS OF MONEY.

LLA NICKEL, DIME, QUARTER, HALF DOLLAR.

ANTITIES UP TO 25 CENTS.

S. BER OF COINS FOR VALUES TO 75 CENTS.

AN ION MONEY PROBLEMS, AMOUNTS LESS THAN \$1.00.

TIN ONS INVOLVING ALL U.S. COINS BY COUNTING TO \$1.00.

MIX TO SUMS TO \$1.00 OUT OF A SET OF MIXED COINS.

RESENTING THE ONES DIGIT AND DIME AS REPRESENTING THE TENS DIGIT.

ECI DOLLARS AND CENTS, USING THE USUAL DECIMAL NOTATION.

S IN CENTS.

0003325004	INDICATES CHANGE.	
0003325005	MAKE CHANGE FOR ANY PURCHASE UP TO \$1.00.	
0003325006	COUNTS CHANGE STARTING WITH THE TOTAL VALUE OF THE	PURCHASE.
0003325007	IDENTIFIES CHANGE IN COINS WITH PURCHASE AMOUNTS LESS	THAN \$10.00.
0003325008	ADDS, MONEY VALUES, USING CENT AND DECIMAL NOTATION TO	\$10.00.
0003325009	SUBTRACTS MONEY VALUES, USING CENT AND DECIMAL NOTATION	TO \$10.00.
0004325	VALUE OF COINS	
0004325001	STUDENTS CAN ACCURATELY APPLY MONEY NOTATION TO	ADDITION.
0004325002	APPLY MONEY NOTATION TO SUBTRACTION.	
0005325	VALUE OF COINS	
0005325001	MULTIPLIES MONEY VALUES USING DOLLARS AND DECIMAL	NOTATION.
0005325002	DIVIDES MONEY VALUES USING DOLLAR AND DECIMAL NOTATION.	